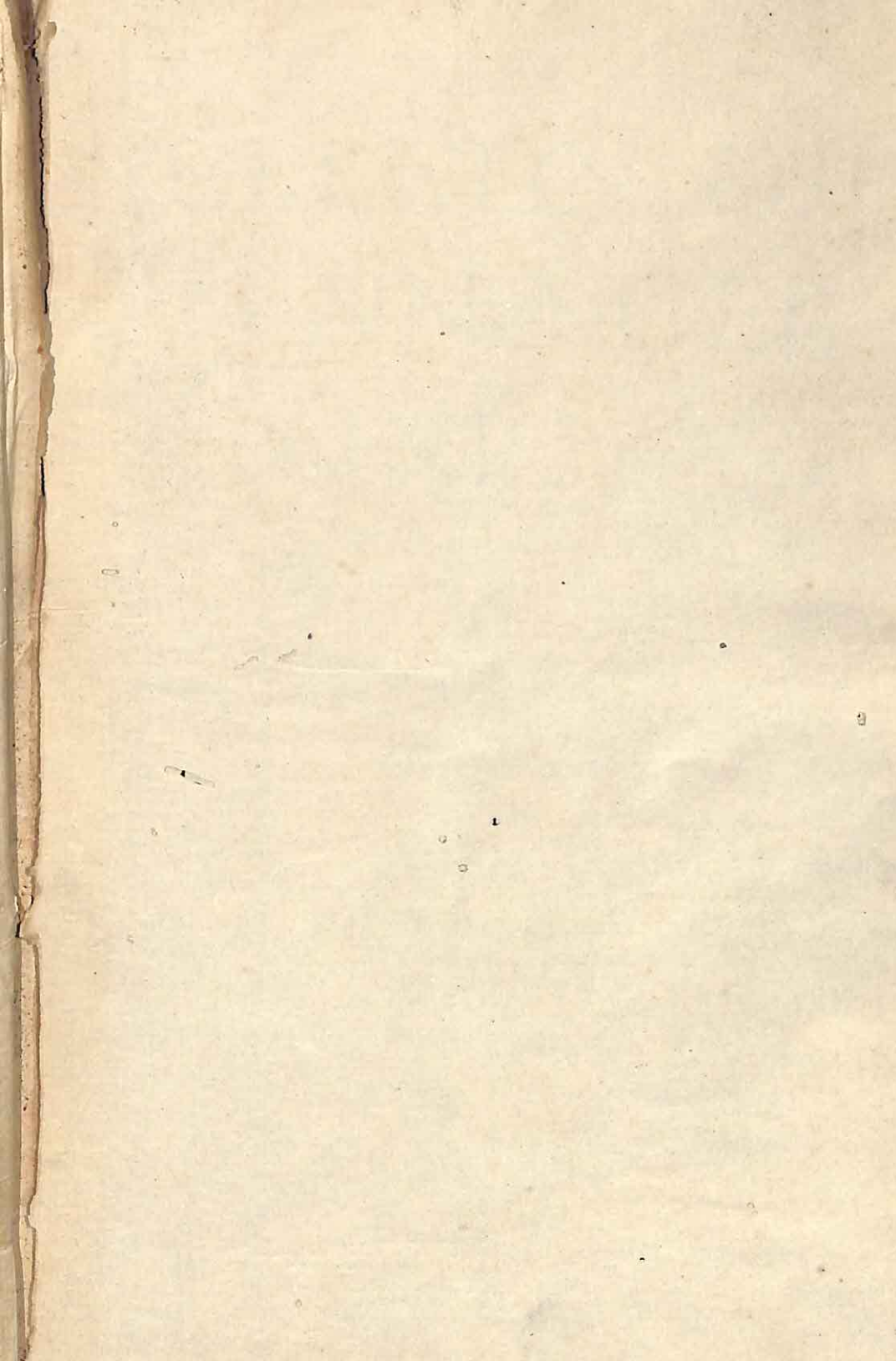


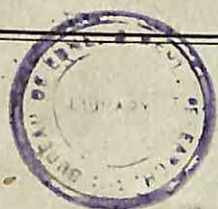
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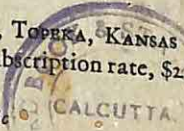
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Bulletin of
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JANUARY, 1939

NUMBER 1

PERIPHERAL NEURITIS*

By FREDERICK P. MERSEY, M.D.

Section on Neurology, The Menninger Clinic, Kansas City, Missouri

To most physicians the terms "neuritis" and "pain" are synonymous. It is true that pain is one of the signals of disease and, as Dr. John B. Deaver has well said, "pain is the language of a suffering nerve." However, every pain is not necessarily painful. Laymen and physicians are prone to ascribe all unexplained pains to a neuritis and, in this respect, when in reality it is deserving of the dignity that belongs to a definite disease process.

If physicians can but keep in mind the definition of neuritis, they will not ascribe the term to every pain. Neuritis is an affection of any portion of a peripheral neuron that is characterized by a disturbance in function.

associated with pain. A neuritis is not always an inflammatory process, but may be a toxic or infectious process. In reality it represents a disturbance in the function of the nerve, the severity of the disturbance depending on the nature of the injury that the nerve sustains.

ANATOMY

Every nerve is made up of numerous cell bodies with numerous fibers. The cell body is the axis-cylinder, which is the central part of the nerve. The axis-cylinder is insulated by a myelin sheath except in the case of sympathetic nerves and the olfactory nerves. The myelin sheath is interrupted at regular intervals by constrictions known as the nodes of Ranvier.

* Lecture delivered at the second Postgraduate Course in Neuropsychiatry, The Menninger Clinic.

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PHYSIOLOGY

Every nerve is made up of numerous cell bodies with numerous fibers. The cell body is the axis-cylinder, which is the central part of the nerve. The axis-cylinder is insulated by a myelin sheath except in the case of sympathetic nerves and the olfactory nerves. The myelin sheath is interrupted at regular intervals by constrictions known as the nodes of Ranvier.

* Lecture delivered at the second Postgraduate Course in Neuropsychiatry, The Menninger Clinic.

Ranvier. Surrounding the myelin sheath is the neurilemma, or sheath of Schwann. Small clusters of nerve fibers are held together in small bundles by the endoneurium. Several of these bundles are in turn held together by the perineurium, while the whole nerve is surrounded by the epineurium. The lymph spaces of the nerves run in the endoneurium and perineurium and are continuous with the subarachnoid space of the brain and spinal cord. It is the presence of this direct communication between the central nervous system and the peripheral nervous system that permits conduction to travel from the central nervous system to the nerves or from the nerves to the central nervous system. In the epineurium are blood vessels which supply the nerves. Small branches of blood vessels penetrate into the nerves through the perineurium, and if these fine blood vessels which are affected in so-called ischemic neuropathy either by trauma or by inflammation, the myelin sheath breaks up into lecithin bodies and fat droplets. The axis-cylinder fragments and proliferate. The distal portion of the nerve degenerates; this degeneration is called Wallerian degeneration. As a rule, the proximal portion of the nerve degenerates rather backwardly, in which case the entire nerve degenerates. The simplest functional combination of neurons is the reflex arc. The function of life is associated with a consumption of oxygen and production of carbon dioxide and heat. A nerve impulse is not inclined to carry metabolism, but as an active chemical conductor, it is non-fatiguable and impulsive. In the cranial nerves, one finds both sensory and motor changes following the injury of a nerve.

BY MORTONS

FEEDBACK

cardinal symptoms which will
character of the affection. There
may be pain, weakness, sensory
defect of degeneration. Every

neuritis is not associated with all of these signs, but a diagnosis of neuritis cannot be made without some of these signs being present.

CLASSIFICATION AND ETIOLOGY

There is no classification of neuritis that is entirely satisfactory, both from a clinical and pathologic standpoint. For practical purposes one may divide the forms of neuritis into two large groups: (1) focal neuritis or mononeuritis, and (2) multiple neuritis or polyneuritis. Focal neuritis is usually of traumatic origin. Any nerve of the body may be affected, and the involved nerve, as ulnar, median, or radial, is given the name of the focal neuritis. Occasionally a focal neuritis may result from an infectious or infectious cause. Multiple neuritis is only occasionally the direct result of trauma. Among the more common causes are the following: metallic poisons, such as lead and arsenic; chemical agents, such as dinitrophenol, trinitroresyl, and various carbon compounds; toxic infectious diseases, such as influenza, scarlet fever, and mumps; metabolic disturbances, such as diabetes, hemiparaphyrinuria, vitamin deficiencies, such as pernicious anemia, beriberi, alcoholism, and pellagra.

Traumatic neuritis. As a general term, traumatic neuritis is a mononeuritis. The trauma may be in the form of a cut, a blow, a pressure, or a fracture of a bone. Multiple tumors (neurofibromas) may also cause traumatic neuritis. If the trauma is severe, the nerve may be injured, but multiple peripheral neuritis is not a direct result of trauma alone. There will not be peripheral neuritis, but mention should be made of the following examples: The posterior humerus, either by a fracture of the humerus, either by the callus. The ulnar nerve is injured at the elbow. At times the nerve will escape callus formation, the nerve may be injured, which will produce a tardy ulnar palsy. Both the median and ulnar nerves are subject to pressure and laceration of the arms and joints. A neuritis of the median nerve occasionally results from

injuries or prolonged pressure about the wrist. In the lower extremities the tibial nerve and the common peroneal nerve are the more vulnerable nerves and may be injured in fractures of the bones of the leg. Wolsman has described a peroneal neuritis that is the result of compression of this nerve. It may follow prolonged or repeated crossing of the legs and has come to be called "crossed-leg palsy." In extensive injuries several nerves or a plexus may be injured. Single or multiple tumors may occur on nerves and may produce neuritis. Occasionally, in the presence of an unexpected malignancy, a malignant infiltration of a nerve or nerve plexus may occur and be misinterpreted as a simple neuritis, unless the possibility of metastatic infiltration is kept in mind. In the presence of any ill-placed mononeuritis, the possibility of an occupational factor should be considered, as in the execution of some routine movement the related nerve may be traumatized. It is well, at this point, to say a word about ischemic neuritis, which is usually considered under the heading of neuritis of vascular origin. Ischemic neuritis or Volkman's ischemic neuritis, as it is frequently termed, is due to an acute injury or obstruction of the nutrient vessels of a limb. The trauma may be in the form of a tight fitting bandage or cast, and though the pressure may result from hemorrhage and swelling, which serves to compress the nerves. The resulting neuritis is usually mild. There is a characteristic board-like induration of the muscles that is resistant to any form of therapy.

Multiple neuritis. Multiple neuritis is a general term applied to the neuritis of mixed character. The term itself carries no etiologic significance. Under this general heading are placed the various forms of general neuritis, which are the result of diverse and unrelated causes. Severe multiple neuritis is, as a rule, symmetrical in its distribution, of rather slow onset, of long duration, and is associated with marked objective manifestations.

Neuritis caused by metallic poisons. Under this heading are included the neuropathies caused by lead, arsenic, thallium, mercury, bismuth, tin, copper, and silver. The possibility of such an etiologic factor should be kept in mind in the presence of an unexplained neuritis. Of the metals, lead and arsenic are the most common causes of multiple neuritis. These two metals have what may be termed a specific selectivity for nervous tissue; lead has an affinity for motor nerve fibers, while arsenic is prone to produce sensory form of paralysis.

Lead neuritis. The prevalence of lead and arsenic in the arts and in the trades makes them ever present, and they must be thought of at all times when considering the etiology of a neuritis. The prevalence of lead is attested by the fact that in breast milk of many nursing women small quantities of lead are frequently found. There is an individual susceptibility to intoxication from these chemicals. It must be remembered that lead and arsenic are occasionally found in face powders, face creams, and in home-made preparations such as sauerkraut in which the containers are made or lined with substances containing lead or arsenic.

Lead produces a motor paralysis which is usually symmetrical. There is rarely any marked disturbance of sensation, and pain is not a prominent symptom. Bilateral wrist-drop and foot-drop are the characteristic findings, although the muscle weakness may be very extensive. Lead colic is rather uncommon in cases of lead neuritis. The blue line on the gums should be looked for in every case of suspected lead neuritis. The blood smear may show stippling of the erythrocytes. In the urine there may be traces of lead ranging from 0.25 to 0.5 mg. per liter of urine. There are certain unusual forms of lead intoxication in which there is involvement of the spinal cord and brain which produces the picture of a *moncephalopathy*. Rarely are the optic nerves affected.

Treatment of lead neuritis cannot be effective unless the source of supply has been stopped. In the early treatment, the lead is made to immobilize the lead in the skeletal system by the administration of calcium and alkali. Large amounts of milk should be given to the diet. As the symptoms of neuritis disappear, the lead may be aided by the use of ammonium chloride or lead extract. Hot packs and the ingestion of large quantities of fluid may aid in this process. Lead is difficult to eliminate from the system, and the symptoms of lead neuritis may persist for many months.

Arsenical neuritis. Arsenic may be even more prevalent than lead; at least, arsenical neuritis is stated by Woltman to be four times as common as lead neuritis. It is not always easy to determine the source of the arsenic in any given case. Frequently, arsenic is used medicinally in the treatment of syphilis and anemia, and it may produce a neuritis, especially if the patient is susceptible to a neuritis. At times, arsenic may be introduced into the system in drinking water. In-

secticides and various sprays are common sources of arsenic, and epidemics of arsenical neuritis have been attributed to their use. Some persons are very susceptible to the toxic effects of arsenic. At times, large amounts of arsenic are found in the urine without any evidence of a neuritis; on the other hand another person with only a trace of arsenic in the urine may have a severe neuritis.

The early symptoms of an arsenical neuritis may be confined to the gastro-intestinal tract and may be very misleading unless the possibility of an arsenical intoxication is kept in mind. Dermatitis of various forms, such as changes in pigmentation, desquamation, and hyperkeratosis may precede or accompany the onset of the neuritis.

The neuritis caused by arsenic is chiefly of a sensory type; there are intense pains, tenderness, and paresthesias of the affected parts. The motor symptoms are less striking but occur in cases in which the neuritis is severe. The lower extremities are mainly affected, although the upper extremities usually share in the neuritic symptoms. Unless the nature of the condition is recognized, it may be of a very chronic nature with attendant changes in the skin, hair, and nails.

The main factor in the treatment of arsenical neuritis is to stop the ingestion of arsenic. Once the ingestion of the arsenic has been stopped, improvement gradually occurs. In some instances elimination of the arsenic is very slow, and residual motor, sensory, and skin changes may persist for many months or be permanent. The use of sodium hypophosphite intravenously, has been highly recommended as an aid in eliminating the arsenic; there is considerable evidence that it is not as effective as was formerly supposed. Other general measures, such as warm baths, are to be instituted for any neuritis.

Thallium. Neuritis due to thallium is rare. It is mentioned here because an unscrupulous drug vendor occasionally will place on the market a depilator containing thallium. As a result of ignorance on the part of laymen, an outbreak of neuritis occurs. Thallium is an efficient hair remover, but it produces a severe neuritis. It has a selective action on the optic nerves and causes a retrobulbar neuritis. In cases of severe intoxication it may produce an encephalitis. In the treatment of thallium neuritis, elimination of the drug is the first requisite. Other general measures that should be employed are warm baths, very light massage, mechanical support of paralyzed limbs, and a diet high in vitamin content.

Neuritis caused by chemical agents. Alcohol leads the list of chemical agents that are a frequent cause of neuritis. As a result of recent studies relating to alcoholic neuritis it would appear advisable to place this form of neuritis under the heading of a deficiency neuritis as it seems conclusively demonstrated that the neuritis is due to a vitamin factor rather than to the direct effects of the alcohol. Other toxic chemical agents that produce neuritis are triorthocresyl, dinitrophenol, carbon monoxide, carbon bisulfide, and ergot.

Alcoholic neuritis. Alcohol is said to be one of the most frequent causes of multiple neuritis. At times, the neuritis is not the direct result of the alcohol, but the alcohol acts as a predisposing cause. There is great individual susceptibility to the development of alcoholic neuritis. The neuritis may come on acutely or it may be insidious in onset. The first symptom is pain. This may be very severe, the nerves may be tender, and the distal portion of the limbs may become very painful. There is a gradual muscular weakness which may progress to the development of foot-drop and wrist-drop. Alcoholic neuritis is mainly a motor neuritis. Sensory changes are not as severe as the motor changes, but always occur to some extent. The optic nerves may be affected and occasionally are the only nerves to present evidence of a neuritis. In addition to the involvement of the peripheral nerves, there may be a mental condition characterized by confusion and confabulation, known as Korsakoff's psychosis. It is a question whether alcoholic neuritis is due to direct toxic effect of the alcohol or to a vitamin deficiency resulting from a dietary defect. From experimental work it appears that vitamin B plays an important role in the production of an alcoholic neuritis. It has been shown that persons may continue to drink from one pint to one quart of whiskey a day without the development of a neuritis if they obtain sufficient vitamins.

It is important to place these patients on a well-balanced, high vitamin diet. This should be supplemented by injections of vitamin B concentrates and liver extract. Naturally, the use of alcohol should be discontinued. General symptomatic measures should be instituted as for any neuritic affection. It is the rule that patients who have an alcoholic neuritis recover after the use of alcohol has been discontinued. At times, residual motor weakness remains; this suggests that there has been some injury to the anterior horn cells of the spinal cord.

Jamaica ginger paralysis (jake-leg paralysis). Jamaica ginger paralysis is due to triorthocresyl phosphate. This substance is also found in some toxic preparations of ergot. During the days of prohibition, some 30,000 cases of Jamaica ginger paralysis were observed. The symptoms may come on acutely or two to three weeks may elapse before signs of a neuritis develop. The paralysis is mainly of a motor type; it especially affects the distal portions of the limbs. There may be a stocking or glove type of anesthesia. The intestine and bladder are not involved. Recovery is very slow. There may be injury of the cells of the anterior horns of the spinal cord, in which event there is but little recovery. The optic nerves may be affected, and mental changes occasionally occur.

Very closely allied to Jamaica ginger paralysis is the neuritis that is caused by apiol, a preparation which is employed as an abortifacient. The etiologic agent in this type of paralysis also is triorthocresyl phosphate, and the symptoms are essentially the same as those of Jamaica ginger paralysis, but owing to the small amount of apiol that is used, this does not produce the severe changes encountered in Jamaica ginger paralysis.

Neuritis caused by other chemical agents. Another substance to be considered in the etiology of neuritis is orthodinitrophenol. This preparation is employed in the treatment for obesity. It produces a painful peripheral neuritis that is associated with paresthesias and weakness, especially of the lower limbs.

Other chemical substances that may produce peripheral neuritis are veronal and its hydrochloride, benzene, carbon monoxide, carbon disulfide, and chloroethylene.

The treatment of any of these forms of neuritis is essentially that of a chemical neuritis.

Toxic or infectious polyneuritis. The term "toxic neuritis" was and still is used by some writers to include the neuritides caused by metallic poisons, chemical agents and toxins of bacterial, virus, or other origin. Here the term is restricted to include only those types of neuritis that are associated with an infectious process, or are the result of an endogenous or exogenous toxin. The best example of this form of neuritis is diphtheritic neuritis. Any of the acute infectious diseases such as measles, mumps, scarlet fever, influenza, and tonsillitis may be followed by a neuritis. Leprosy, antirabic treatment, and the

toxins liberated by certain ticks are also prone to produce a multiple neuritis. Here, too, belong the rather rare neuritides that follow the use of immune sera such as tetanus antitoxin.

Diphtheritic neuritis. Diphtheritic neuritis is rather common. It usually occurs from two to three weeks after the onset of the illness, but it may occur sooner, as evidenced by paralysis of the palate. There may be a localized form in which the paralysis is confined to the soft palate, or the neuritis may become generalized and involve all of the limbs. There are three characteristics of a diphtheritic neuritis which make it such a specific disease entity. First, there is the local paralysis, which in the case of faucial diphtheria consists of paralysis of the palate; second, there is the specific paralysis, which is the paralysis of accommodation, and third, there is a generalized motor paralysis. During the acute illness or within two weeks after onset of diphtheria, the paralysis of the palate will be noted and there will be a disturbance of accommodation. The patient may recover entirely from the cranial nerve palsy before the generalized motor paralysis appears. There may be some sensory disturbance but this is usually rather slight and the patients rarely complain of much pain. For this reason they may refuse to remain in bed, but it is highly advisable that they do so. Diphtheritic neuritis has frequently been considered to be an ascending perineuritis. This would assume that the infection travels up the lymph channels of a nerve to the nuclei where it produces the paralysis. Such a theory would well account for the local palate paralysis but would not account for the generalized paralysis.

The treatment consists primarily in the avoidance of all physical fatigue and the prevention of contractures. Recovery is the rule, but a year or more may elapse before complete restoration of function has occurred. The use of vitamin B, strychnine, and digitalis are to be recommended. During the early months of the neuritis, complete rest in bed should be insisted upon to avoid cardiac failure.

Neuronitis. This term has been used to describe certain forms of polyneuritis of unknown origin. Such terms as "polyneuritis with facial diplegia," "polyradiculitis," and "polyneuronitis" also have been employed. The etiology is not known but the disease is thought to belong to the group of virus diseases.

As a rule, the condition appears as the aftermath of some acute infectious disease. It affects children as well as adults. Usually, there

is a rapidly progressing motor paralysis of the extremities in which the distal portions are chiefly affected. Facial weakness may or may not be present. The lower extremities are mainly affected; the deep tendon reflexes gradually disappear, and sensory changes of a moderate degree may be present. Tenderness of the muscles may be present, but there is rarely the severe pain that is seen in neuritis caused by alcohol or arsenic. In several instances choking of the optic disks has been observed. The course of the illness is usually afebrile. Recovery may occur within a few months, but in cases in which the symptoms are severe recovery has extended over a period of two or three years. While recovery is the rule, the mortality rate in cases observed at The Mayo Clinic was about 14 per cent.

A striking feature of the disease that is of diagnostic importance is an increase in the protein content of the spinal fluid. The concentration of protein may reach 400 to 800 mg. per 100 c.c. of spinal fluid. Occasionally, the spinal fluid is slightly yellow and pleocytosis may be altogether lacking.

As the etiology of the affection is not known, there is no specific treatment. It is important to keep up the nutrition of the patient. If signs of bulbar paralysis occur, the patient may have to be fed by means of a nasal tube. In my experience the use of large doses of vitamins B and D and the administration of sodium chloride appear to have been helpful.

Neuritis resulting from deficiencies. In the past fifteen years it has been more and more appreciated that the forms of neuritis resulting from vitamin deficiency are much more common than previously recognized. Under this heading are to be considered a group of cases of neuritis in which the etiology is none too clear but in which a vitamin deficiency plays a definite rôle. The diseases that are specially to be considered here are: pernicious anemia, beriberi, pellagra, acrodynia, neuritis of pregnancy, and alcoholic neuritis.

Pernicious anemia. A peripheral neuritis may be one of the earliest signs of pernicious anemia, and may precede the hematologic changes by months. For this reason valuable time may be lost before an accurate diagnosis is made. The neuritis is usually a forerunner of a more serious disturbance of the spinal cord which is characterized by changes in the posterior and lateral columns. The neuritis is usually not very extensive but the paresthesias of which the patient complains are very

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characteristic. The neuritis is usually confined to the sensory elements of the peripheral portions of the nerves. In cases in which the symptoms are severe, changes in the spinal cord far exceed the changes in the peripheral nerves and constitute the problem of major importance.

Beriberi. Beriberi was long considered to be a disease of the Orient. Today, it is recognized as a deficiency disease and may occur in any climate; it is the result of the prolonged use of a poorly balanced diet that is low in antineuritic vitamins. It is liable to occur among infants who are improperly fed, among alcoholics, and among the poor who do not receive a well-balanced diet. The neuritic symptoms are those of a sensory-motor type of multiple neuritis. In addition to the signs of the neuritis, marked gastro-intestinal symptoms may be present and death may occur from exhaustion.

Pellagra. A dietetic deficiency also is the basis of the neuritis that occurs in cases of pellagra. The neuritis is usually most severe in the lower limbs. Pigment changes of the skin are common and late in the progress of the disease mental symptoms may dominate the picture. The diagnosis of pellagra is not always easy to make as the condition may develop rather insidiously in association with a chronic debilitating disease.

Treatment of neuritis that is caused by vitamin deficiencies consists of the care of any underlying debilitating disease. The diet should be high in calories. Vitamins and liver extract should be administered and supportive measures should be employed in the acute crises. In all these conditions it is important to bear in mind that the treatment must be carefully supervised as the patients frequently become careless and the end results are not satisfactory. Thus, in pernicious anemia the associated neurologic manifestations may not respond to the treatment that is adequate to restore a normal blood picture, and more intensive therapeutic measures must be followed.

Neuritis of metabolic origin. Under this heading belong the neuritides associated with diabetes, gout, and hematorporphyrinuria. Diabetic neuritis is the more common and important neuritis of this group and deserves a few special remarks.

Diabetic neuritis is rare among young persons. It is most frequently observed among elderly patients and occurs especially in association with arteriosclerosis of the limbs. Some authors are of the opinion that the arteriosclerosis is the causative factor of the neuritis and

that the diabetes is incidental. Diabetic neuritis is so characteristic that it appears that the diabetes must be considered as playing an important rôle in its production. The neuritis has little relationship to the amount of sugar in the urine and may occur in cases in which the diabetes appears to be well controlled. It even may progress under well regulated treatment for the diabetes. The neuritis most frequently involves the lower limbs and is of the sensory type. Paresthesias are exceedingly troublesome and the patients have much pain. At times, the neuritis may be very profound and there may be evidence of involvement of the spinal cord. In such instances the spinal fluid may contain an increased amount of protein.

The treatment of diabetic neuritis is a difficult problem. The diabetes must be brought under control but this alone is not sufficient to bring about improvement in the neuritis. In addition, general symptomatic measures should be employed. Recently, the use of sodium chloride has had some very beneficial effect. It is exceedingly important to avoid sedation as the long suffering frequently makes these patients an easy prey to drug addiction.

Neuritis of vascular origin. The most common form of neuritis of vascular origin is that seen in cases of severe arteriosclerosis. The neuritis is usually of a mild character; it is of the sensory type and annoying paresthesias are the patient's chief concern. It is probably true that many of the neuritides attributed to arteriosclerosis are in reality due to a combination of factors. While the diagnosis of arteriosclerotic neuritis is frequently justified the possibility of other causative factors should not be overlooked.

Woltman has recently called attention to the neuritis associated with periarteritis nodosa. This is an uncommon condition and not readily diagnosed. It may closely resemble a neuronitis. The neuritic symptoms may be focal or general; pain, fever, leukocytosis and enlargement of the spleen and lymph nodes are of diagnostic importance. Unfortunately, there is no satisfactory treatment for the condition.

Ischemic neuritis is the other important form of vascular neuritis. This has been referred to under the heading of traumatic neuritis as trauma frequently plays an important rôle in its development.

COMMENT

I have avoided discussing the subject of neuritis of the cranial nerves as this is a long and complicated chapter in neurology. I have

also avoided mention of the more uncommon forms of neuritis which might only serve to confuse this discussion.

No discussion of neuritis is complete without a few remarks on the differential diagnosis of neuritis. The more common conditions to bear in mind in the diagnosis of a neuritis are tabes dorsalis, tumors of the spinal cord, poliomyelitis, arthritis and fibrositis, neuralgias, malignant infiltrations of nerves, multiple neurofibroma, and pain caused by visceral disease. If one bears in mind that there are but four major neuralgias, namely, trifacial, glossopharyngeal, occipital, and recurrent laryngeal, one may avoid the mistake of calling an ill explained pain a neuralgia, or of calling a neuralgia a neuritis.

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THE PSYCHOLOGICAL FACTOR IN DISEASE*

BY KARL A. MENNINGER, M.D.

No feature of the modern medical scene presents more alluring prospects, both in theory and in practice, than the increasing recognition of the emotional factor in organic disease. The growing interest in this aspect of medicine is reflected in the research now in progress in numerous centers, and in the ever expanding bulk of pertinent medical literature. But even if none of these researches had ever been published, the daily experience of every thoughtful, intuitive physician must have led him to similar conclusions were it possible for him to allow himself to think what he has been taught never to believe.

For there is a strange paradoxical situation in this matter, in that what we all know in private life we do not discuss in our public scientific sessions. Every doctor in this audience knows that it is impossible to separate human psychology from human physiology and human chemistry. Yet look at the program of this meeting; look at our exhibits; look at the curricula of our medical schools—and tell me why the psychological factor in disease is avoided as if it were taboo.

As a psychiatrist, I have for a long time been interested not only in the psychology of my patients, but in the psychology of myself, and of my colleagues. Logically, therefore, I have reflected on this curious fear of or aversion to the discussion of psychological concepts, and I believe numerous factors contribute to it, to summarize which would be impossible in the time allotted me today. I will concede, however, that one factor is a charge to be laid at the door of us psychiatrists, who have not always remembered that we are doctors first and psychiatrists afterwards, and that we must speak to our fellow-physicians in the common language and not in a psychiatric jargon.

Perhaps, too, if psychological factors in disease had not been made the basis of a so-called religion, one of the tenets of which is that all doctors are wicked, physicians might not have been so slow to acknowl-

*Read before the Section on General Medicine of The American Medical Association, San Francisco, California, June 16, 1938.

edge the truth back of the distortion. They forget that this creed arose in part as a reaction against the static materialism of a medical practice which ignored psychological data completely.

But there are other reasons for this reluctance of doctors to consider scientifically the psychological factor in medicine. There is a group of thoughtful medical men whose stumbling block is their inability to reconcile their knowledge of the physiochemical operations of the body with what they regard as the unproved claims of those who use psychological techniques. A representative of this group recently voiced these objections to me in these rather typical words, "I hear what you say about gastric ulcer and arthritis and prostatitis and hyperthyroidism and asthma being cured by psychotherapy. I know what has been written about ulcers and hemorrhages being produced by suggestion. As a gentleman and a fellow scientist, I may not doubt your word, but to me it just does not make sense. I am familiar with your theory about self-destruction and I can see how a man might voluntarily cut off his nose to spite his face, but how could he inflict such damage upon his prostate or his stomach or his thyroid? There are no voluntary nerves to these organs. The autonomic nervous system does not carry such purposive impulses. There isn't any known way that one's thinking, conscious or unconscious, can affect one's organs except in a very general way, such as bodily tension or fatigue. I can't repudiate my belief in anatomy and physiology, and therefore I can't accept these research reports about emotional factors in physical disease even though they are attested to by credible scientists and colleagues. I am compelled to believe that they are coincidences or misinterpretations of fact."

To such colleagues, and I believe there are quite a few of them, I would make the following reply: In the first place, it *is* possible to account for many of the organic responses to emotion on the known facts of autonomic innervation and function, especially in the light of the newer knowledge of the hypothalamus.¹ Hence, even on their own grounds, such objections are unsupported. But in addition to this there is a new line of supporting evidence coming from the experimental physiologists which I think should be widely disseminated. The work of some of the Russians,⁸ Rasenkov and others, have shown that cortical stimulation evokes hormonal substances capable of producing the same effects as does the direct stimulation of the brain itself; the

injection of blood and spinal fluid obtained after the stimulation of the brain will affect the pancreas, for example, in the same way as did the original cortical stimulation. The same principle underlies the work of the American, Bender,² who demonstrated that the facial and ocular reactions characteristic of fright could be produced in monkeys after destruction of the nerve supplying these muscles. Bender showed further that the same muscular contractions could be invariably reproduced by administration of acetylcholine. This would suggest that the emotion of fright stimulates the production of acetylcholine or a substance like it which in turn can produce reactions which we have for hundreds of years supposed to be dependent exclusively upon direct nervous stimulation. Hall³ of Toronto has gone further and shown that injections of acetylcholine are followed by the production of pathological organic lesions of a wide variety and Gardner, Smith, Strong and Allen⁴ have shown that lesions of various types and in various organs may be produced in animals through the use of large doses of estrogen. This is a continuation of work begun twenty years ago by Lathrop and Leo Loeb⁵ and represented more recently by the experiments of Lewis and Geschickter⁶ correlating the estrogenic hormone with various tumor growths.

What does this all sum up to? Simply this: that it is no longer possible to say that there is no experimental evidence for the existence of physiological mechanisms by which psychological activity may result in organic damage. This principle may even be extended to include neoplasms. It is astonishing that laboratory physiologists should thus have come closer to the consideration of the psychological factors in cancer than have the clinicians.

To all this I shall add some of the positive evidences from other fields than those of anatomy and physiology as to the validity of the concept of the psychological factor in disease. Time prevents my more than listing some of these with a few comments on each.

1. We know that physical symptoms and signs may be induced by stimuli which are essentially psychological in nature. Both hypnosis and hysteria afford clear and acknowledged evidences that just as a blister or a paralysis may be brought about through a mechanical blow, they may also be brought about by a psychological blow. If they *may* be brought about then they *are* brought about. If they are brought about under a set of known conditions there is no logical

reason to dispute the fact that they might be brought about under other conditions less well controlled or understood. In other words, the fact that we understand the psychological process involved in a hysterical paralysis does not mean that there are no psychological processes in an organic paralysis.

2. It is a matter of empirical observation that in some diseases the psychopathology is just as conspicuous as the physical pathology and it is illogical and unscientific to assume that they have no connection. If a man who has been found to have hypertension is also found to be living in mortal terror of being declared bankrupt, it is perfectly legitimate to attempt to explain these two symptoms separately but it is also legitimate to attempt to understand them conjointly. Those of us who believe in the unity of the organism cannot be persuaded that there is any sense or science in limiting personality study to piecemeal consideration.

3. No one denies the therapeutic effect in some organic diseases of a purely psychological or sociological approach. It would be very tiresome to this audience to recite even the classical illustrations of this. It is more important that I point out that the psychological amelioration of an organic disease does not prove its psychological origin. In fact, I have repeatedly posited that it is philosophically impossible to conceive of any disease being purely psychological in origin. But such phenomena do show that pathological energy disbursements can be altered in a favorable way by recourse to psychological techniques just as we already know this to be possible by recourse to physical or chemical techniques. That goiter can be cured sometimes by surgery, no one will deny. That it can be cured sometimes by iodine, no one will deny. That it can be cured sometimes by psychoanalysis, no one who is informed will deny. This does not mean three different kinds of goiter or that one method is as good as another. It seems a little trite to say that there are more ways than one to kill a cat, but we doctors seem to have to be reminded of it, because we have groped along for so many centuries on the assumption that psychology was taboo and not to be touched by scientific zealots.

4. A corollary source of evidence is the empirical observation of the alternation or substitution of predominantly psychological and predominantly physical disease syndromes as if they stood in some reciprocal relationship to one another. I refer not only to the structuralization of symptoms which are at first "hysterical" in nature, later becoming organic, but more especially to the less familiar but more convincing phenomenon of patients ill with a physical disease who, cured of that illness against their wishes, as it would seem, replace it with a mental disease, and vice versa. We have all seen this many times.⁷

5. Finally, we cannot take it to be pure coincidence that the same

motives, the same psychological structure, can be demonstrated to exist in illnesses which are predominantly psychological and illnesses predominantly physical. Both have the same destructive consequences, and it is difficult to conceive that they do not have in the deepest layer of the personality the same self-destructive purpose. Whether this be called instinct, energetic trend, regnant process, or something else does not matter.

In conclusion, I should like to say again what I have said many times before—namely, that the word psychogenic as applied to a disease confuses the issue and misses the point. If we assume that the terms psychological, physical and chemical describe three different aspects of the same phenomenon and relate primarily to different techniques of investigation, approach or management, it logically follows that in every disease process there are psychological factors, physical factors and chemical factors. For this reason there can be no such thing as a psychogenic illness. But there can also be no such thing as a physiogenic or chemogenic or bacteriogenic illness. There are physical and chemical factors in every case of hysteria and there are psychological factors in every instance of ulcer, hemorrhage, infection and cancer. The progress of medicine demands that we seek for these, and ignore no longer that which is attested to by our experience, our experiments and our philosophy.

To recapitulate, I have submitted some evidences from physiological research that psychological processes represented by the wish to fall ill may be correlated with the structural or functional disease of an organ. I have submitted psychological and empirical evidence in the same direction. I do not expect these intellectualizations to overcome the emotional resistances of some of my colleagues, but for those who see the human being and his environment as a totality of interacting functions—and not as a collection of independent parts—the material cited may afford reassurance as to the equal validity of psychological, physical and chemical data in the study of the sick patient.

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AMATEUR DRAMATICS AS A THERAPEUTIC AGENT IN THE PSYCHIATRIC HOSPITAL

BY NORMAN REIDER, M.D., DAVIDA OLINGER, M.A. AND
JEANETTA LYLE

That dramatics have a socializing function in civil life is evidenced by the many community theaters and amateur playhouses, some supported in part by public funds. The recreational value both to the actors themselves and to their audiences is also unquestioned. The psychological release obtained from enacting dramatic rôles is also admitted though not usually considered important in such ventures. The individual who elects to engage in amateur dramatics, however, usually hopes to find some means of self-development and self-expression in addition to the social and recreational values.

Since all these functions that amateur dramatics fulfill are desirable for those patients in a mental hospital capable of participating, one might expect that the presentation of plays would be a part of the recreational program of such hospitals. Certain obvious difficulties are opposed to this, however. The demands made upon the players in preparing a play are often too great for a group of patients to undertake. The memorizing of a part requires considerable self-discipline; appearing before a more or less critical audience requires a degree of poise; cooperating with other patients in the production, the observing of cues, and punctuality at rehearsals all require a social conscience and a regard for others which may be difficult for every member of the group to maintain. Furthermore, the tension under which one or two of the group may labor after the production is under way may force them to drop out at a critical moment, thus disappointing the remainder of the cast and bringing the project to a close.

These very obstacles, however, indicate some of the reasons why dramatics may prove very useful to the recreational therapist when used with a group whom the physician considers ripe for such a program. When the difficulties are overcome by the group working together as a whole, encouraging and helping one another, even bringing a certain amount of pressure to bear on timorous or rebellious ones, the effect of the experience is a wholesome and therapeutic one which

could not be achieved individually. When the obstacles are too great to be overcome they may be circumvented in such a way that the project remains a fruitful experience for each patient. For example, in many of the plays given by the members of the Little Theater in our sanitarium, therapists or nurses act as under-studies prepared to fill a rôle on short notice. In some instances it is desirable that the patient know that the entire success of the production does not depend on his performance. In others, of course, more responsibility can be given to an individual player without untoward effects. Similarly some patients will require more prompting, more suggestions and reassurances than others. It is important that the therapist constantly remind herself that the benefit the patient derives is of far more importance than the presentation of a finished stage production. It is of more value to use a number of individuals in the gathering of properties, the arranging of sets and costumes and in the actual performance than it is to have a few individuals carry the load with more expeditiousness and efficiency.

In this paper we wish to indicate some of the psychological uses to which the individual may put his part in a play, aside from the social and recreational value the play may have for him as a member of the group. We spoke above of the "psychological release" the average person obtains from acting, the "self-expression" afforded him. Such phrases mean that the individual finds in dramatics, outlets for certain unconscious strivings.* It has been one of our aims in the recreation department of the Sanitarium to discover what these unconscious needs are, how amateur dramatics may theoretically meet them, and in what ways the patient actually manipulates his rôle in order to satisfy them in a particular case. Furthermore, the careful observation of a patient in a dramatic production by the coach-therapist often gives valuable diagnostic and therapeutic leads which can be utilized by the physician.

A detailed description of one play will serve to illustrate how this may be done in a variety of patients.

The plot of the play, *Man Submerged*, concerns a man who thinks women have the easier part to play in the day's routine. He offers to

*Menninger, W. C.: Individualization in the Prescription for Nursing Care of the Psychiatric Patient. *J. A. M. A.*, 106:756-761, Mar. 7, 1936.



remain at home and keep house while his wife goes shopping. He is interrupted throughout the remainder of the play by salesmen, gossiping neighbors, borrowing friends, and even his own son, who disturbs him in his housekeeping. Thus by means of comedy and humorous situations, the husband learns his lesson—that the woman's lot is not always as easy as it looks.

The part of the wife who goes shopping while her husband stays at home and does the house work was taken by a thirty-seven-year-old woman who, before her admission into the sanitarium, had been married twice and had had a stage career. She had many masculine strivings, wore masculine clothes, and walked with a firm masculine gait. These strivings were constantly getting her into difficulty; in order to accomplish her ends she would be unduly aggressive toward people. Following these manifestations of hostility she would have deep feelings of guilt for her aggressive behavior and would become depressed. It was clearly indicated as a therapeutic aim that she be permitted to take out her aggressions in a more socially acceptable manner. This play helped accomplish this aim. Since she was a person of talent and ability several plays were suggested to her.

She refused plays that required real ability, saying that she could not keep her mind on a difficult rôle. She finally chose this little farce, *Man Submerged*, suggesting that she take the minor rôle of the wife. This was not actually a minor rôle for her, as she intended taking a major rôle in coaching the play and in choosing the cast. She attempted to dominate the whole situation even up to the night of the final performance. She memorized her own lines quickly, but insisted upon needless extra help from the director for her few unimportant lines. During play rehearsal she interrupted the other actors' lines at frequent intervals. She made innumerable suggestions as to action and costumes; she sometimes tried to change some of the work done by the director by trying to put her own ideas forward. At the final performance, her aggressiveness was again demonstrated: she kept the whole cast waiting while some one returned to her room for her gloves, which she had forgotten. As the play progressed and she was off-stage, she leaned far over the shoulder of the director and peered onto the stage, many times disturbing the props. She had the unimportant part of ringing a gong at the close of every scene, but, as she was busy instructing the rest of the cast, she had to be reminded. While she

was on the stage she recited her lines well and showed no stage fright. At the conclusion of the play, when the rest of the cast were receiving congratulations, she was well up front explaining to the spectators the facts concerning the play; how she had just a straight part with no comedy, and that she chose not to have a stronger part; that she had done a large share of the coaching of the play. Since she had repeatedly asked the doctors to come and bring their children, she now demanded to know if she had not been correct in insisting that they come.

It may be observed that through her conduct and interpretation of the play many of the unconscious needs of the patient were answered: She was able to act out a masculine rôle in a socially acceptable manner. She was able to free her aggressive drives without a feeling of guilt. Since she had a feeling of insecurity she was given a reality success that was beneficial. Through the rôle she played that of a wife going to the city while her husband took the feminine rôle, she answered an important unconscious wish to dominate her husband and to be a man herself. So clearly were her strivings revealed that by observing the patient prior to and during the performance the doctors were assisted in their treatment of the patient.

The patient who took the part of a salesman demonstrated his own behavior pattern by his reactions to the play. This part was given to a young man who was undergoing psychoanalysis for his character defects and alcoholism. He had never finished school and had never been able to do any real work or to hold a position for any length of time. He was essentially a weak character with disadvantageous feminine identifications. He could never assume a major rôle which called for effort and ability because he was so insecure underneath his defenses. He was offered the lead in the play, i.e. the part of the husband, but was surly and sullen and seemed afraid to accept the part. When a minor part was suggested he became cheerful and pleasant again and accepted willingly. Thus he acted out, in the acceptance of the play, the chief pattern of his entire behavior. This bit of conduct furnished his analyst with excellent material for his analysis.

Another example will show how a patient's reactions to a play resemble his reactions to life. A young man with neurasthenic symptoms was offered the lead also. He had great feelings of insecurity which caused his withdrawal from social contacts save for superficial

types which he kept up to demonstrate he was still a member of society. He read the part aloud and received much praise for his excellent interpretation, but he immediately became distressed, saying it was too much work, and that he couldn't possibly memorize the part. He later accepted a minor part just in order to keep himself in the family group. He attended the rehearsals irregularly and took part listlessly. His conduct and attitude throughout the play demonstrated his hostility and ambivalence toward society.

The lead for the play was finally found in a young man whose illness had been diagnosed as a neurotic depression with alcoholic tendencies. His participation in the play seemed to supplement his psychotherapeutic treatment in such a way that he was able to gain insight into one of his chief conflicts. Upon reading the play he immediately recognized that the plot turned on what was for him a painful subject—namely—passive feminine wishes. He saw that his own conflict was one which many men have; in accepting the part he said that he felt that acting out might provide additional information useful in the understanding of his own makeup. He apparently received considerable gratification from admitting his passivity publicly and making of it a humorous predicament, within the safe confines of a play. He showed intense interest in the play from the beginning. He memorized his part immediately, was faithful in attending play rehearsals, met characters for special practice hours; in fact, he gave up many activities to rehearse with others. He insisted that all properties be on hand and in their proper order. This may have been in part a protest against the passivity of the part he played. This same protest was shown again when he strongly resented the changing of the name from the original to *Man Submerged*. He showed that he wished to get all the erotic benefit possible from the play, as he substituted the word "kiss" for the word "tell" to a young woman who played the part of his son.

He insisted upon a frilly apron instead of a tea towel as had been suggested. Here again he demonstrated his desire to gratify his passivity, a desire he had fought against for a long time. By acting in the play this young man was able to assume a feminine rôle in a socially acceptable manner. He acted out a denied wish and in so doing gained further insight and understanding into his own problems, thus enabling him to make more rapid progress in treatment.

The part of the "borrowing neighbor" called for a character who was aggressive, interfering and meddlesome. After much urging and coaxing a woman of about forty-five years of age accepted the part. She had dramatic ability, and was in reality anxious for the part, but she had to be urged. She had had several depressions; each time she returned home from various institutions she would again become depressed. She memorized her lines easily and required little outside help. At first she was critical of the part and of the other members of the cast, but as the play progressed she became more interested in the part and put much of her own expression into it. On her own initiative, the night of the final performance, she appeared in an appropriate dress with her hair arranged as she thought a "gossipy" person should wear it. She did excellent work on the stage, showed no stage fright, and repeated her lines in such an exact, yet humorous manner, that she received more applause than the rest of the cast. Upon seeing her analyst after the play she said, "I felt I was at home." With this opening the analyst was able to point out that the part satisfied her deeply repressed wish to carry on the same type of aggressions portrayed on the stage. The woman was angered by this and maintained that she was merely acting, that she had heard neighbors at home talk in that fashion, that all the fun had been spoiled by the doctor's remarks. Actually she meant that she was angry because she recognized the nature of her aggressions. Through further talks with her physician she was given insight into the aggressive wishes which produced her depressions.

A young lady about twenty-five years of age took the part of a saleswoman. She had entered the hospital in an almost catatonic stupor, had been in the institution seven or eight months, and was making a gradual, consistent recovery when this small part was offered her. She accepted the lines without urging and had little difficulty in learning them. At rehearsals she needed constant reassurance because she had a great deal of fear of hostile reality which had been an etiologic factor in her illness. Two or three days before the play she became noticeably depressed and seemed to lack confidence in herself. The night of the dress rehearsal a large hat which partially shaded her face was secured for her, and she then seemed more confident. The night of the final performance she presented her lines well and showed little or no fear.

It was interesting to note that she had extreme difficulty in learning the lines which mentioned "one's own home", a fact quite in keeping with her hostility toward her own home, and the repression of her aggressive tendencies toward members of her family. It was observed that through her dramatic activities this young woman was reinstated in the group and that she received narcissistic gratification which was helpful in building up her ego; by means of this reality success she gained added confidence in herself.

CONCLUSION

The above explanations and examples indicate how dramatics may have a distinct value as a therapy in a mental institution. This simple farce provided outlets for the unconscious needs of the patients that participated and for those who witnessed it. A man and a woman who had the unconscious desire to identify themselves with one of the opposite sex were allowed to gratify these wishes in a socially acceptable manner. The desires to be aggressive, to create, and to obtain love were satisfied in fantasy through the play. Some patients gained further insight into their own problems, and thus were able to further their own recovery. The therapists, by observing the patients, were helped in understanding their difficulties. No little value stemmed from the demonstration to those involved in the production that they could, by their coördinated efforts, function as members in a social group. Finally, other patients who participated only as members of the audience received some benefit from identification both with characters in the play and with actors in the play, their fellow patients, who had made this contribution to the social life of the hospital.

It might be pointed out that while there is likely to be some specificity of the problems presented in certain plays that could have particular bearing on the problems of certain patients, we are of the opinion that no direct attempt need be made in picking out a play to suit the problems of patients. Though it seems that the play described in this paper may have been a particularly happy choice, we feel that in any play centering around the problems and difficulties of interpersonal relations there will be adequate material for alert therapists to utilize.

PHANTASY IN MAL-ADJUSTED CHILDREN AS OBSERVED IN THREE CASES AT THE SOUTHARD SCHOOL

BY EUGENE EISNER, M.D.

Phantasy may be defined as an imaginative expression of the emotional life, conscious for the most part, but characterized by a symbolic investiture and a cathartic function. It would appear from some of the literature that because phantasies are in a sense flights from reality, they are therefore regressions. One recalls Freud's statement that day-dreaming is a continuation of child-play¹ and that while the adult may regard his phantasies secretively as "being childish and as something prohibited,"² the child is unashamed and does not purposely conceal.

This paper endeavors to describe the functional correspondence between phantasy and reality using some phantasies of three maladjusted children. These phantasies will be described as integral expressions of the personality subserving constructive as well as destructive functions.

Several approaches to this problem have already been made and the subject is by no means a new one. Ackerman,³ Appel,⁴ Bender,⁵ Isaacs,⁶ Lyle and Shaw,⁷ and others approached the subject from the standpoint of the medium of the child's artistic expression. Freud⁸ and others have studied the stories that children fabricate; Ricklin⁹ has made psychological investigations into the fairy tales commonly told children. Piaget¹⁰ and his school have explored the child's imagination by way of direct questionings.

Such studies are enlightening as to the difference between child and adult thought. We know that younger children are more or less completely egocentric and that their phantasies constitute, in great part, the world in which they live. Owing to the child's inadequate verbal powers, expression is at first individual, imitative, and symbolic, and the imaginative ingenuity of the child expressed as phantasies serves a very useful purpose of stimulating mental growth as well as introducing new environmental relationships. Thus the child grows, with an increasing appreciation of phantasies and the manner in which

such thinking departs from reality. Day-dreaming and play then serve the function of linking the external (physical) with the internal (psychological); in other words, the child utilizes phantasy as a guide between the dangers of psychosis (the denial of external reality) and those of neurosis (the denial of psychic reality).¹¹

In the present paper, I have attempted to disclose a section of the phantasy lives of three children observed at The Southard School for periods varying from one month to one year. My endeavor has been to interpret the meaning of their phantasies, and to discuss the various functions which such expressions may serve.

CASE MATERIAL

Steve was an only child of twelve. He displayed many fears about doctors and operations, and was unusually preoccupied with thoughts of death and suicide. He frequently expressed the desire to become an undertaker, to commit suicide, or to kill his parents.

When he was three years old, he sustained a fracture of the base of the skull, following an automobile accident. After fifteen hours of unconsciousness (during which period bloody spinal fluid was repeatedly withdrawn) and three months of bed rest, he finally was able to rejoin his parents. There, the home conditions were always unsatisfactory: his mother was an ailing, complaining invalid; his father meek and undersized. Following the accident and until the age of six, the patient suffered from major convulsions. When these attacks ceased, *Steve's* behavior became more and more hyperactive and bizarre. Finally, after months of alternate fluctuation between extravagant braggadocio and sullen self-deprecation, he was admitted to The Southard School.

It is difficult to appreciate the extremes to which his behavior went. During his first few days at the school, he blustered and swaggered continuously; with a cigarette dangling from one corner of his mouth, he introduced himself, "I'm a big shot, who are you?" Yet, at the same time, he seemed obsessed with his own inadequacy and betrayed these feelings by such statements as "I'm a dope, because I'm just dumber than dumb. I don't know a damn thing about anything."

A curious feature was his apparent inability to distinguish between fact, phantasy and dream. One day, for example, he wrote his parents asking them to call for him immediately and take him home, because (he said) early that morning he had been given ether, preparatory to a major operation. When confronted with this misrepresentation, he became bewildered but insisted that since he had dreamed of having had an operation, he ought to go home because his parents would want to see how he was feeling.

At another time, Steve exclaimed that he was "*through* slaving for The Southard School" for, he said, his mother had never expected him to clean gutters and wash sewer pipes. When this outburst failed to arouse attention, Steve raged for a while, declaring that at any rate he should not be required to wipe the dishes in the kitchen.

Steve had several delusions (which were various and unsystematized) one of which concerned the fact that others were writing notes about him and knew he had "killed that man." Later in the day, he spoke of having dreamed of shooting a man who had tried to steal into his father's house.

These examples may be understood as verbal expressions of the confusion which existed between the imagined and the actual. The patient fully expected his unconscious phantasies (his two dreams) to justify his wish to see his parents as well as his delusion that others were writing about him. These thoughts (whether to call them true dreams, or preconscious phantasies according to Varendonck, is a problem which need not concern us necessarily) formed interesting correlates with his bragging and heroic posing.

The combination of physical injury (at the age of 3) and inadequate home with invalid parents seemed to have contributed to Steve's disorder. In his phantasies, he replaced his weak parents with the blustering construction of his own invention and his erotic needs were displaced thereby from the real parents to ideal, phantasied substitutes.

The aggressive components of Steve's phantasies were illustrated by his sneering "big shot" attitude and by his dream of killing someone. Their self-aggressive or punitive character were reflected in his statement that he had been forced to clean sewers and in his dream of having submitted to an operation. His phantasies therefore served destructive as well as constructive aims. The confusion, as described above, of reality, phantasies, and dreams betrayed evidence of the severity of Steve's maladjustment.

Tony, the second case, was a red-headed, freckled youth of sixteen whose belligerence and refusal to conform to any group standards made him a failure at school and a problem at home. His younger sister, Terry, was very popular and more advanced scholastically than was the patient.

The most significant feature of Tony's past life was the death of his mother when he was seven and a half years old, and the subsequent management of the household by the father, an unsympathetic and strict person. The father complained that Tony was so disobedient

when with others that he had to be restrained or completely isolated from their company to avoid embarrassment. The patient annoyed his father frequently and invariably received a beating in return. The child, on his side, was very frank in his hatred of his father, and called him a "brainless idiot," a "numbskull," and "bad rubbish."

Tony had a loud and grand manner of speaking (as for example, in referring to an airplane crash as an "inadvertible disaster"); actually, however, his judgment was defective and his intelligence rather low. His writing was an almost unintelligible scrawl. His manners and actions in general were never those of a mature adolescent, but rather those of an insecure, restless, young boy. Whenever adult friends visited the school, he ran upstairs to his room, or sought protection in an older feminine figure.

Tony's phantasies presented a well systematized elaboration concerning Hollywood, airplanes, sleuths, G-Men and public enemies. In these activities, Tony was always the central figure; he said that a large corporation employed him at a salary of \$100,000 a year to make several movies. In these pictures, Tony took the part of a fearless aviator and ace flyer who committed great feats of endurance and versatility, trapping robbers and bandits. He called himself "The Eagle," and in his pictures he was a fabulously beneficent figure who maintained a disguise until the end when, in spite of all odds, he was victorious.

Tony related that one afternoon, while standing near his window; he heard a low voice which said, "Tony, I'm coming to get you." The sound seemed to emanate from between two trees outside. However, Tony hastened to add immediately that at one time in his career he had helped detectives catch a "dangerous criminal" with the aid of his trusty six-shooter.

For the greater part of a month, he persisted in weaving heroic stories about himself. He would torment his younger schoolmates and would poke his two toy pistols at adults in "stick-up" fashion. Finally, he did retract many of his supposed adventures, but only half-heartedly. He could never relinquish his "Eagle" existence completely. It seemed to have supplied for him a medium, however fantastic, for bridging the gap between his ego-strivings (to become a hero) and the reality situation (his inferiority).

In such patients, the presence or absence of true hallucinations is difficult to determine. Tony appeared to have heard voices entering his window but his report of this experience was followed by another story obviously fictitious. Therefore, what appeared at first sight to have been a hallucination was probably a part of his less-distorted phantasied existence, evoked at the moment to increase his self-esteem.

It appears likely that the cinema hero, the master detective, the G-Men, and the Eagle were all symbols of paternal figures, i.e., of authority and power. Some of these may have expressed his own wish for the kind of father he would have preferred in real life, or they may have been expressions of his own efforts to prove his superiority to his father.

Since his phantasies expressed the kind of power he would have loved to possess, they therefore served constructive (though ideal) ends. However, the reality situation of dead mother, unkindly father, superior sister, and failure at school were immediate witnesses of his incompetency. He could never successfully play his self-chosen rôle of movie hero. Tony's reaction to these repeated frustrations took the form of insults hurled at his father, aggressive play-acting with other adults (whom, for example, he would confront with his pistols), and anxiety expressed by restless teasing of children younger than himself.

Thalia, the third case, was a girl of eighteen, who had been unmanageable because of her persistent lying and disinterest in studies. This extraordinary facility for story-telling incurred dismissal from several institutions and was one of her chief problems at The Southard School.

Thalia had a younger sister who had been exemplary in her development and very popular at school; the patient, however, was less friendly with others, had a club foot and was frequently ridiculed because of it. The mother was over-protective and regarded her daughter's difficulties with horror; the father, a professional man, was very chagrined. Before she was thirteen years old, her mother had given her considerable sexual information concerning menstruation and childbirth, although such instruction was unrequested by the child; at fifteen, the patient became intimate with a pregnant woman who had been suffering considerable abdominal pain.

Thalia spoke freely and glibly; if the stories were bizarre, they were nevertheless replete with circumstantial candor:

"I just detest Indians. Did I ever tell you about my father's grandfather? No? Well, you see, he was killed by an Indian. It was a shame. He had a wife and two babies, and he was found dead one day in the backyard with an arrow through his heart. It wasn't a big arrow either, but it was enough to get him. He went out in the morning to milk the cows, and when next seen he was found dead with an arrow in his back."

This particular narrative seemed to have been inspired by the medical attention an Indian girl at the school had received that morning

because of menstrual pain. If the listener remained incredulous at such a story as the above, a more unscrupulous one frequently followed. For example, Doctor X (of our staff) was then accused of having been unfaithful to his wife:

"A man of your age! I'm surprised at you. For goodness' sake, how many women do you want? You have one already. Oh, I've got my evidence; with the help of one of your fellow doctors, as a matter of fact. It was he who first called my attention to things, but that's no reason for your going ahead and kissing Miss V. After all, she is going away soon on her vacation, back to her Bobby." (When Thalia was asked why she made all these accusations, she answered:) "Because that Doctor X is like a little puppy without a tail." (She was asked to explain further and after many evasions she finally seized a dictionary and pointed to "penis" as the word she meant for "tail.") "Oh, that Doctor X, how I would love to cut him into little pieces and eat him all up." (Later, when Miss V. was asked to identify "Bobby," she explained that he was her ten year old brother.)

Previous authors^{13, 14} have pointed out that the pathological liar is never static but active, and always pushes onward in his stories no matter how astonishing the conclusion. The final character of the lie may therefore become that of a delusion and be acted upon accordingly. For example, as Doctor X was leaving Thalia, she reached for his ear and whispered, "Go and kiss Miss V.; now is your chance."

On different occasions, Thalia imagined herself a pregnant woman or the mother of several children. To unsuspecting visitors she vividly described her ordeals as a mother. She often complained to her physician about vague abdominal pain, and through various complaints, attempted to secure a pelvic examination.

Freud has said of delusion that it "is found like a patch on the spot where originally there was a rent in the relation between ego and outer world."¹⁵ Thalia's longing (conscious as well as unconscious) to become pregnant as her mother had been, could nowhere find satisfaction in her reality situation; she therefore attempted to resolve this breach with such patches as her imagination could conjure up. The erotic nature of these phantasies is apparent. The symbolization of their content was not well disguised: the physician accused of unfaithfulness was presumably desired by the patient, who wished to be a partner in the transgression. Similarly, in order to gain more love, she appeared to have identified herself with Miss V., whom the patient also imagined was loved by this same physician. These phantasies are constructive in function because they supply wished for (and otherwise

forbidden) gratifications. By such guises as the above she could appear pitiable, or alluring or sophisticated in turn. Considering her awkward figure and her prosaic, childish face, her phantasies formed startling contrasts.

There is, on the other hand, considerable aggressiveness implicit in Thalia's phantasies. For example, her story of the Indian who killed her relative was her response to the attention an Indian girl was receiving; the inference is that Indians are dangerous, therefore, unworthy of solicitude. Her fantasy of the unfaithful doctor who is "like a little puppy without a tail," her wish to cut him up into little pieces and to devour him are patent expressions of her destructive impulses. Such impulses are, therefore, seen to be interwoven with patent erotic aims. This constructive-destructive interconnection is characteristic of fantasy just as it is of all other psychological manifestations.¹⁶

COMMENTS

The relative strength of the love and hate components in fantasy, and the extent of such thinking at different levels of development constitute problems worthy of continued study. In this paper, several phantasies of three maladjusted children have been presented; the symbolic investiture of the phantasies themselves, as well as their erotic (constructive) and aggressive (destructive) elements have been suggested. An attempt has been made to explain some of the possible functions which fantasy may subserve for the maladjusted personality.

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BOOK NOTICES

Manual of Psychiatry and Mental Hygiene. By AARON J. ROSANOFF, M.D. Seventh Edition. Price \$7.50. Pp. 1091. New York, John Wiley & Sons, Inc., 1938.

This prodigious volume (1091 pages), much of it in very fine print, contains many excerpts from the works of other writers, many detailed fragments of case histories, some new and unfamiliar concepts (for example, Chapter 23, "Chaotic Sexuality Including So-Called Schizophrenic Psychoses"), numerous tables, formulae, and illustrations, a long glossary and index, but very few references to any modern American psychiatrists. (K. A. M.)

Love, Hate and Reparation. By MELANIE KLEIN and JOAN RIVIERE. Price 3s. 6d. Pp. 119. London, The Hogarth Press, 1937.

Written in clear, non-technical language, this small book should provide a real contribution to the sound psychoanalytic literature which the public can understand. Mrs. Klein and Mrs. Riviere, both experienced British lay analysts, have put into this "psychoanalytical epitome" (Number 2 of this series) public lectures given under the auspices of the British Psychoanalytic Society on the related topics of "Hate, Greed and Aggression" and "Love, Guilt and Reparation." (R. P. K.)

Papers on Psycho-Analysis. By ERNEST JONES, M.D. Price \$8.00. Pp. 622. Baltimore, William Wood & Co., Fourth edition, 1938.

Six years ago this book began life as an exposition of Freud's psychoanalytic theory and practice, and the history of the four editions of this book reflects the history of psychoanalysis. The first part of the book is devoted to "general papers," ranging from a marvelous description of Freud's psychology to the problem of instincts and ending with the author's thought about the "future of psychoanalysis." The four chapters of the second part deal with the psychoanalysis of dreams, and form the transition to the third part, "Clinical Papers." Jones' work, which belongs to the classics of psychoanalysis, may be found here, especially his papers on obsessional neuroses, impotency, aphasias, anxieties, fears, guilt and hate, the mantle symbol, jealousy and similar topics. The psychoanalytic study of the child forms the last and fourth part of the book. (M. G.)

Essentials of Psychiatry. By GEORGE W. HENRY, M.D. Price, \$5.00. Pp. 454. Baltimore, Williams & Wilkins Co., Third edition, 1938.

This new edition, the third, shows a very noticeable swing from Meyerian to Freudian psychiatry. New chapters on mental examination, disorders of childhood, and psychiatry in general practice have been added, but mention of the newer shock therapies is lacking, and the subject of psychiatric nursing is rather superficially considered. (R. T. M.)

PUBLICATIONS BY MEMBERS OF THE STAFF

ORR, DOUGLASS W., M.D., and ORR, JEAN WALKER. *Health Insurance With Medical Care: The British Experience*. Price \$2.50. Pp. 271. New York, Macmillan, 1938.

So many accounts of the British health insurance have been characterized by careless reporting that this book should meet with a hearty welcome. As the Orrs say, "The way to find out about a thing is to go and have a look at it," and a look at it for the Orrs consisted of spending five months talking with the patients who receive medical service under the panel system and the physicians who provided it. In the Orrs' words this meant interviewing "everyone we met: the maids who tidied up our rooms, the waiters who served our meals, and even the hairdresser at Marshall and Snelgrove's store on Oxford Street." They not only interviewed the workers they met casually but systematically interviewed housewives, husbands, and young folks who were affected by the panel system. The result is, the reviewer believes, the most complete and accurate report of the National Health Insurance program that has yet been made. David Lloyd George says of it: "To our people it will give a remarkably clear and helpful picture of the complexity of our existing health services and of the nature of the problems involved in their further extension and reform."

The testimony of the workers, workers' families, panel doctors, officials, and all others interviewed, with the studies made of official statistics, provide the best kind of evidence for evaluating the British health program.

A condensation of some of the essential facts about British National Health Insurance as presented by the Orrs:

Virtually every employed person earning less than \$1,250 per year must carry such insurance. This provides general medical care, medicines and weekly cash benefits.

The insurance fund is supported by workers' contributions of 10¢ per week per worker, employers' contribution of 10¢ per worker per week and government contributions of one-seventh of total contributions plus the costs of administration.

Patients may not only choose their own panel physicians, but may change panel physicians if they wish.

Panel physicians serving one member of the family frequently become the family physician, an indicator of the quality of the service given panel patients.

Panel physicians see an average of 60% of their panel each year.

An average panel consists of 1,000 patients. In addition a panel physician may (and generally does) carry on a private practice.

A panel physician receives \$2.25 per capita per year, regardless of services rendered.

The presentation of this material is without coloring or prejudice, and it is offered not as a rigid form which should be copied in this country but merely for the information of Americans.

J. R. S.

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THE DIAGNOSIS AND TREATMENT OF BRAIN TUMORS*

By I. S. WECHSLER, M.D.

New York

The subject of brain tumors has grown considerably in importance in the past two decades. The impression may be that they are rare; actually they are very common, perhaps more common than most other organic brain diseases, excepting of course syphilis and the convulsive state. It may be that we are more skilled and expert in diagnosis, but there is a body of opinion which holds that brain tumors actually are on the increase. There is hardly a week that I do not see one, two or three cases. If the neurologist sees them the general practitioner too must, and it is only a question of recognition. They are common at all ages. I have seen one in an infant of five weeks. It used to be said that they are more common in children, but I doubt it. It is not so much the incidence as the type of tumor and its location that varies with age.

The mortality used to be as high as 30 to 50 per cent either at operation or soon after it. Today the operative mortality is as low as 10 per cent or less. Much depends, of course, on the type and location of the tumor and on the skill of the surgeon. Cushing reported a series with a mortality of 6 per cent. Operations for trigeminal neuralgia have practically no mortality. Frazier reported a succession of 600 cases without any fatality. Brain tumors still offer a bad prognosis but they are not quite so hopeless as formerly.

Time was when we were satisfied with making a general diagnosis of tumor. This is no longer enough. Today we want to know precisely where the tumor is and what is the nature of it. A skilled diagnostician should be able to say with a fair degree of certainty in 90 per cent of cases that there is a tumor. In about 80 per cent of cases

*Lecture delivered at the second annual Postgraduate Course in Neuropsychiatry, The Menninger Clinic, Topeka, Kansas.

he should be able to localize it fairly accurately, and in the majority of instances he should venture more or less accurately a pathological diagnosis. For instance, one should be able to predict whether the tumor is an astrocytoma, a glioblastoma, a medullablastoma, an angioma, or a meningioma. Obviously if one can say that a patient has a large infiltrating glioma of the left side of the brain, one would hardly risk its removal; whereas if one is fairly certain that it is a meningioma, operation may result in permanent cure. But even in tumors which are not completely removable operation may not only save life but restore good health and even usefulness.

For diagnostic purposes a brain tumor may be defined as a new growth which encroaches upon the contents of the cranial cavity. If a patient has a pituitary tumor that does not break through the sella into the cranial cavity he has not a brain tumor. A tumor may grow in the brain itself or grow into it from the meninges, skull, or vessels. Practically every kind of tumor can grow within the brain. Gliomas are the most common. Some are metastatic, and it is well in adults or people past middle age to look for a primary source in the prostate, thyroid, chest or gastro-intestinal tract, in cases where the tumor seems to be growing rapidly.

Three general facts are worth bearing in mind in the matter of diagnosis. First, the skull is an inelastic capsule of fixed capacity. Second, the brain is an organ which has numerous localizable specific functions. Third, there are two types of circulation in the brain, namely, the blood and cerebrospinal fluid. Now, if you disturb the delicate relationship between the fixed capacity of the skull and the contents of the cranial cavity certain general symptoms must result. The skull has just so much capacity; it can yield a little bit; the blood and the spinal fluid circulations can yield a little; but if the balance continues to be upset general symptoms must appear. Similarly, if the tumor compresses certain parts of the brain local signs and symptoms set in. Motor and sensory signs of a focal nature, visual, auditory or aphasic disturbances, cerebral nerve involvement or ataxia, each speaks for a particular location.

The two sets of symptoms, then, are general and focal. Some tumors manifest themselves first by means of general symptoms, and it is not necessary to wait for focal symptoms to make a diagnosis or institute treatment. Others show only focal signs and symptoms, and

if you wait for the advent of general ones before operating it may be too late. Generally speaking, brain tumors give rise to both general and focal symptoms. Interference with the two circulations in the brain disturbs the intracranial pressure, from which many of the general symptoms result. This is particularly true of the cerebrospinal fluid pressure. This fluid, as you know, runs in a closed set of cavities in a system more or less all its own. The circulation of the spinal fluid is in one direction. Probably it is secreted by the choroid plexus into the lateral ventricles. From there it flows into the third ventricle, the aqueduct of Sylvius and the fourth ventricle to the base and surface of the brain. If there is interference with this one-way circulation, the cerebrospinal fluid is dammed back and it causes increased pressure within the skull. The further dorsally the interference is, the greater is apt to be the increase in pressure. That is, the result is an internal hydrocephalus. This is particularly true if there is blocking of the aqueduct of Sylvius.

General symptoms include headache, a persistent, severe, throbbing, nagging headache which does not easily yield to medication. Some patients have no headache. The more intracranial pressure there is, the more likelihood of headache. Dizziness is another general symptom. The vertigo can be very distressing. Lesions of the posterior fossa are more likely to cause dizziness because of disturbance of the vestibular apparatus. Vomiting is the third general symptom, again more common in posterior fossa lesions. Vomiting may be absent, and when present it need not always be projectile in nature.

Mental symptoms are not uncommon in tumors of the brain. They range all the way from the "psychoneurotic" to the "psychotic." Dr. Leo Stone mentioned the patient who was treated as a psychoneurotic when he had a brain tumor. Some patients with tumor have only general mental symptoms. These symptoms can occur with a tumor in almost any location, even in the posterior fossa, but they are most common in lesions of the frontal lobes and of the corpus callosum. The mental symptoms vary: there may be disturbances of consciousness, such as want of attention, dullness, drowsiness and stupor, or a general slowing down of the personality. There may be psychotic manifestations with delusions, hallucinations, character and personality defects, facetiousness and a tendency to jocularity. Mental symptoms may be the only manifestations of brain tumor, without choked disc

or anything else, and it is in those cases that errors in psychiatric diagnosis are possible. If a patient, who has been well previously, develops psychoneurotic symptoms or mild personality changes, it is well to think of general paresis and brain tumor. Ordinarily adults do not suddenly become neurasthenic or hypochondriacal or change their personality.

Convulsions are another group of symptoms which may have either general or special significance. The Jacksonian fit has special localizing value; the generalized convulsion may or may not have localizing significance. A grand mal attack may occur from a lesion almost anywhere in the brain. Tumors of the temporal lobe commonly give rise to convulsions. So do tumors of the motor areas. In the latter instance they are more apt to be focal or Jacksonian, at least in the beginning. For instance, if there is irritation in the motor leg area of the brain a convulsion will occur in the leg of the opposite side. Jacksonian convulsions are not accompanied by unconsciousness. A Jacksonian fit may be the beginning of a generalized convulsion.

Perhaps the most important and pathognomonic general sign of tumor of the brain is choked disc or papilledema. It may occur in other than expanding lesions, but it is significant of brain tumor in practically 90 per cent of cases. It can occur in inflammatory conditions, in fracture of the skull, in subdural hematoma, abscess of the brain, and hydrocephalus. Choked disc probably is the result of damming up of the spinal fluid and the consequent internal hydrocephalus, more particularly increased intra-ventricular pressure. Tumors anywhere may cause choked disc, but it is most common in posterior fossa lesions or such tumors as compress the aqueduct of Sylvius and the third ventricle. Slow pulse frequently is a sign of increased intracranial pressure.

Focal signs obviously reflect injury to particular regions of the brain. The association of general symptoms and focal signs make the diagnosis most likely, although general mental symptoms and focal signs often point to an organic psychosis, such as paresis or cerebral arteriosclerosis. What are the focal signs and symptoms which characterize the different parts of the brain? Tumors of the frontal lobe are frequently characterized by general mental symptoms. These may consist of inability to concentrate, lack of interest, mental obtunding, behavior out of keeping with previous ways, defects in the intellectual

or emotional spheres, and facetiousness or *Witzelsucht*. The patient does not realize the seriousness of his condition; he may transgress social and moral codes. These symptoms may persist for a long time, and if choked disc be absent the patient may be regarded as psychotic.

Tumors on the under surface of the frontal lobe will compress the olfactory bulbs and interfere with the sense of smell. Pressure on the optic chiasm may give rise to visual disturbances or even blindness, hemianopic field defects and optic atrophy with pallor of the discs. Focal convulsions may occur from extension to the motor region.

Temporal lobe lesions, if left-sided, give rise to aphasia. Convulsions are rather common, and quadrantic or hemianopic field defects not rare. Interbrain tumors and neoplasms in the pituitary region sometimes cause disturbances of vegetative functions, often of water and fat metabolism, and of the sleep mechanism. Ocular palsies and visual disturbances are obviously the result of pressure on the nerves at the base of the brain in the middle fossa. Posterior fossa tumors are somewhat less difficult to diagnose. They are generally characterized by signs of increased intracranial pressure, namely, choked disc, headache and vomiting. Cerebellar tumors give rise to ataxia, at first ipsilateral, on the side of the lesion. The ataxia may be bilateral.

Acoustic neuroma generally begins with deafness in one ear, preceded by subjective noises for months or even years, all depending on the rapidity of the growth. As the eighth nerve really consists of two nerves, namely, the acoustic and the vestibular, each with its own separate function, disturbances of equilibrium soon appear. Dizziness, nausea and vomiting, falling, past-pointing and nystagmus point to vestibular disturbances. Very often the otologist sees the cases before the neurologist. Facial palsy is a somewhat later sign. Choked disc is apt to appear late in acoustic and cerebello-pontine angle tumors, and one need not wait for it to make a diagnosis. If one does, the tumor may be so large as to make removal both difficult and dangerous.

Other aids in diagnosis are x-ray of the skull, lumbar puncture, and air injection into the ventricles. Both encephalography (air injection via the spinal canal) and ventriculography (injection via trephine openings in the skull) give a great deal of information. The spinal fluid sometimes is of diagnostic help. Increase of protein and no cell increase may be of significance. Generally speaking lumbar puncture

is not dangerous in brain tumors, but it may be in posterior fossa lesions, and should be done carefully. Ventriculography is somewhat less dangerous than encephalography, but both may be difficult and generally make the patient quite sick. The use of oxygen instead of air minimizes the reaction. One should be prepared to operate if necessary immediately after air injection. Although injection of air is of tremendous importance in diagnosis and gives much information, one should try to make a localizing diagnosis without it if possible. The mortality from air injection in tumors of the brain used to be 3 or 4 per cent, now I believe it is less than 1 per cent. There is practically no danger in encephalography for other conditions.

Ordinary x-ray plates of the skull frequently give a great deal of information. Calcification of an astrocytoma, a hemangioma, a cranio-pharyngioma or in the choroid plexus can be of great diagnostic value. Shifting in the position of a calcified pineal is of very great aid. Meningiomas often show increased vascularity and the presence of exostoses. The x-ray films may show signs of increased intracranial pressure, although their absence does not speak either against its presence or that of a tumor. The size and shape of the sella obviously are of much significance. A good film of the optic or acoustic foramen can be of great help in localization. Electroencephalography promises to be of help in the localization of lesions, but it is somewhat early to speak with assurance.

The treatment of tumors of the brain essentially is surgical. Tumors of the pituitary may yield sometimes to x-ray therapy. No chances of operative removal should be sacrificed once the diagnosis is made. At any rate every patient with brain tumor should have the benefit of the opinion of the surgeon. It is for him to decide whether and when to operate and what technical procedure to follow. Much depends of course on the skill of the operator. At all times is it to the interest of the patient that the neurologist and neurosurgeon cooperate fully. In case of completely removable tumors, such as meningiomas or acoustic neuromas, cures are frequent. But even in non-removable tumors life is often prolonged and frequently made tolerable. Decompression operations often relieve general symptoms, particularly headache, vomiting and choked disc. Medicinal treatment is essentially palliative and generally of no avail.

QUESTIONS

- Question:* Would it be wise to do a lumbar puncture on a man whose vertigo was so severe that he had to get about on the floor?
- Dr. Wechsler:* It depends what the vertigo is due to. In itself it is no contraindication. There is risk in case of increased intracranial pressure from posterior fossa tumors where the vertigo is very pronounced.
- Question:* If you made a diagnosis of metastatic brain tumor which is fairly certain and the patient had no metastases anywhere else would you advise operation?
- Dr. Wechsler:* Up to a year or two ago I would have said, "No." Metastatic tumors are usually multiple and therefore inoperable. But there may be only one nodule, and so I changed my mind. A patient, who had a carcinoma of the breast removed several years back, began to have focal symptoms, headache, vomiting and mental dullness, etc. Just to relieve her distress I suggested operation. The surgeon removed the tumor and the patient was relieved and made comfortable. Maybe she has more foci but so far she is still well. Naturally one must judge every case on its own merits.
- Dr. Karl Menninger:* You have undoubtedly seen brain tumors and severe neuroses in the same individual. Would you express yourself as to the relative frequency of such a combination? We are interested in the fact that they frequently do occur together in persons without previous evidence of tumor.
- Dr. Wechsler:* I have seen the combination, and the question naturally arises as to their relationship. In view of the frequency of neuroses chance association is perhaps the one explanation. Tumors may for a long time manifest themselves as neuroses. I once saw a patient who had a compulsion neurosis for two years before tumor symptoms appeared. The tumor was not even suspected until one day he began to have headache and choked disc. The personality reaction of a patient may possibly color some of the mental symptoms, as it does in paresis, for instance. But whether there is any relationship between tumor and neuroses I do not know. My friend, Dr. Davidoff, made the observation that some cerebellar tumors occur in children of a certain personality make-up but he, too, does not know what the relationship is, if any.
- Dr. Karl Menninger:* We know physical disease is five or ten times as common in non-psychotic patients as in psychotic. Brain tumor then should be less frequent in neurotics than in others. I wonder if you have an idea as to whether that is true.
- Dr. Wechsler:* That is true. Most patients with brain tumor give no history of psychoneuroses. I fear that I have not enough knowledge of this phase of the subject even to speculate.

REACTIONS OF PSYCHIATRIC PATIENTS IN A FRUSTRATING SITUATION*

By J. F. BROWN, PH.D.

INTRODUCTION

Nearly all modern psychological theories suppose that personality structure is to some extent determined by the individual's reactions to frustration. When one considers the important rôle which frustration plays in modern psychological theory it is remarkable how little work has been done with it in experimental situations. To be sure when psychologists set up learning experiments they usually are observing behavior in a frustrating situation. Since, however, the learning experiment is concerned chiefly with the establishment of specific motor and verbal skills rather than with the underlying emotional behavior we may overlook the experiments on learning in both animals and men. While a number of interesting experiments involving complete frustration in animals have been reported,¹⁴ the literature on the experimental study of frustration in humans is very meager. The experiments of the Watsons¹⁸ on emotional responses in children, of Dembo⁷ on rage in normal adults, of Barker, Dembo and Lewin³ on regression in frustrating situations and of Rosenzweig¹⁶ on types of reaction to frustration about complete the list. It is particularly remarkable that no systematic experimental studies of the reactions of psychiatric patients to frustration have been undertaken. Theoretically the various psychiatric categories represent types of adjustment of the total personality to frustration. From observations on the reactions of psychotic and psychoneurotic subjects to frustration in a controlled situation we could expect two results of theoretical importance. In the first place, certain relationships between symptoms and the habitual response to frustration might be uncovered. In the second place we might find valuable leads as to the nature of the personality structure in the various diseases. In addition to the theoretical interest of our problem, such observations might have practical diagnostic and prognostic value for the individual case.

* Presented at the Chicago Psychological Club, December 2, 1938.

With these points in mind we began observations on the reactions to a frustrating situation of patients admitted to the Menninger Sanitarium. In planning our experiments we were concerned with avoiding two errors generally made by psychologists when experimenting with psychiatric subjects in the past. First, since mental illness is a readjustment of the total personality rather than the pathology of isolated psychic functions, we chose to investigate a simple but integrated total behavioral reaction to frustration. This of course made it impossible to duplicate the technical precision of many laboratory investigations on isolated functions.

Again, most early investigations of the emotional responses of psychiatric patients dealt only with stimuli which had little or nothing to do with the patients' actual emotional conflicts in real life. Subjects were shown disgusting or pornographic pictures, disturbed by sudden loud noises, read fictional passages and the like. [Cf. the resumé of this work in Dunbar.⁸] We were concerned with finding a situation in which emotional behavior developed as a spontaneous and real experience rather than as a response to a laboratory set-up.

Lewin¹³ and the writer⁵ have recently pointed out methodological reasons for believing that a hopeful approach in the field of experimental psychopathology lies in combining the experimental approach of topological psychology with the clinical approach of psychoanalysis. In investigating the reactions of psychiatric patients to a frustrating situation we were also concerned with finding techniques which would enable us to utilize such well-known concepts as isolated tension system, psychological departure, level of aspiration, and social pressure¹² in patients in whom the psychoanalytic mechanisms were at least partially known. The patients at the Menninger Clinic furnish an excellent material for this purpose as all case histories are worked up from the psychoanalytic standpoint and many of the patients undergo psychoanalytic treatment.

The desire to use a total integrated behavior, similar to a real life situation, which would also enable us to explore the possibilities of cooperative research between topological psychology and psychoanalysis all entered into our choice of an experimental procedure. In developing a new field it is also advantageous to see many subjects exhibit a rather wide range of behavior than to observe limited behavior in but few. To do this precluded the precise laboratory investi-

gations of each aspect of the problem by truly experimental methods. The data now to be reported are gained from observations in a controlled interview situation rather than from experiments in the technical sense.

METHOD

The technique, modified from experiments by Dembo⁷, has been described in some detail in an earlier paper⁴. The subject is given a simple problem for which two different solutions are possible. After the subject finds the two possible solutions, he is instructed to find a third solution although no third solution exists. The subject is told he must strike a note on a piano without having his feet cross a line marked out on the floor. The piano cannot be reached by the subject while standing, but may be reached if he kneels on the floor and leans over (the first solution), or if he uses an available chair as a bridge (the second solution). A toy piano within easy reach is always present. (cf. below). Nearly everyone discovers these solutions within the first few minutes. Those who fail to do so are given a sufficient hint. (cf. below). The subject is then informed that there is a third solution and the frustrating situation is established.

From this point in the experiment, all the behavior of the subject is carefully noted. After about ten minutes the experimenter remarks without particular emphasis: "This third solution is considerably harder. Only forty per cent of the subjects get this solution, while nearly everyone gets the first two." This remark enables us to gain some insight into the effect of social pressure on the subsequent behavior. After unsuccessfully trying for twenty minutes the experiment is interrupted with the remark: "I have some general questions to ask you. Let me do this now. Perhaps if you occupy your mind with something else for a while the solution will occur to you." The questions asked are concerned with the patient's present mood, reactions toward other patients, activities in the Clinic. Nothing of direct bearing on the patient's illness is asked.* This interruption enables us to note the ease with which the patient changes activities and the manner in which he returns to the main task. If the patient returns spontaneously or under pressure from the experimenter after the interruption, other interruptions are introduced after ten minute periods. These interruptions are given by asking the patients to do other simple tests and problems. For those patients who have not

* It is unavoidable in some cases to prevent the patient from talking about his case. So far as possible, however, the experimenter holds the subject to the routine questions.

previously terminated the experiment on their own account three such interruptions are given. Upon the third one the experimenter terminates the experiment by admitting there is no third solution.

Upon termination of the experiment the complete introspections of the patient are taken. He is specifically questioned on feelings of blame and guilt with regard to the experiment, whether or not he considers that his reactions to frustrating situations in real life approach the behavior shown in the experiment, what his feelings were

TABLE I
Profile

	1	2	3	4	5
1. Behavior towards problem	No cooperation	X	Complete cooperation		
2. Time for solution	15		10		5
3. Manner of solution	1	2	3	4	5
	Shown	without insight			Insight
4. Method of resumption	1	X	8		15
	Refusal			Repeated automatic	
5. Psychological departure:			X		
A. Attempted phantasy solution	1	2	3	4	5
	Much		X		None
B. Flight from situation	1	2	3	4	5
	Complete		X		None
6. Tension	1	2	3	4	5
	Apathetic		X		Much
7. Aspiration	1	2	3	4	5
	Don't want			X	Must
8. Effect of competition	1	2	3	4	5
	Down			Up sharply	
9. Blame: <i>Sit.</i>					
10. Nearness to life: <i>D</i>					

toward the experimenter during the experiment, his reactions to his hospitalization. The patient's assistance is also asked in interpreting any ambiguous behavior during the experiment. For patients undergoing psychoanalysis, the contemporary stage of the analysis is noted. The average time consumed in the experiment is slightly under an hour. The time range is of course wide. Some catatonic patients required but very few minutes, some compulsion neurotics required over two hours.

On completion of the experiment and before the experimenter consulted the findings of the clinical psychiatric examination the chief

results of the experiment were tabulated as profiles as shown in Table I. This is done to get as objective designations of behavior as possible. Although the complete protocols and case histories are used to suggest further research, we consider our results should be given in as objective a fashion as possible. The profile contains ten behavioral categories, some of which may now be considered as standardized and rather highly objective, others of which are still quite dependent on the subjective impression of the observer. The point values of the individual rating scales are highly arbitrary. In general we have taken five-point scales and tried to differentiate behavior into five degrees of the category in question. (Cooperativeness, relative insight, etc.) Also we have usually taken the high score to mean the most "adjusted," i.e. closest to "normal" behavior. The relative objectivity of each category will be discussed in the following explanatory paragraphs. In Table I the profile of a paranoid schizophrenic patient is shown by the use of crosses. We will report the actual behavior of this patient to illustrate the use of the profile.

1. *Behavior towards problem.* We are here interested in whether the subject shows an honest desire to cooperate and accepts the problem as a real one. The score of 5 indicates complete cooperation, i.e. acceptance of the problem such as one would expect in a student coming to an examination. The score of 1 indicates failure to accept the problem at all at first, i.e. such behavior as one would expect in a mutistic catatonic patient: 4 indicates some preoccupation with other affairs or inability to cooperate fully because of anxiety or depression: 3 means less cooperative than 4; 2 means less cooperative than 3 without being wholly uncooperative. The patient shown receives 4. He says "Yes I will try your problem, if you tell Dr. — something for me." Then before he really starts on the problem he says: "Is this a trick to keep me here longer?" However he soon begins to work on the problem. Although this category requires considerable subjective evaluation, we believe the differences in opinion between observers would probably not vary more than one point here.

2. *Time for solution.* This is the total time spent between starting the first and third solutions to the problem. This was noted as a rough measure of intelligence and of general psychomotor reaction time. The subject here scores 12. He found the direct solution in four minutes. He worked five additional minutes unsuccessfully on the second solution. Three minutes were consumed trying to give him hints before the second solution was shown him. The scale is of course completely objective.

3. *Manner of solution.* If both possible solutions are gained within the time limits in an insightful fashion by the patient the arbitrary score of 5 is assigned. Two points are subtracted for each solution which the experimenter must show the patient. One point is subtracted for each solution where a hint is necessary. A typical hint is: "Consider your body as something which can be differently located in space by use of your joints." Such a remark is for the direct solution. "When are tools necessary?" is a typical hint for the solution requiring use of a tool. A score of 4 indicates that one hint was necessary: 3 means that either two hints or one demonstration was necessary: 2 that one hint and one demonstration was necessary: 1 that it was necessary to demonstrate both solutions. The patient here got the first solution and was shown the second so the score is 3. The scale is fairly objective. Some unreliability is undoubtedly introduced by the manner in which the experimenter gives hints.

4. *Method of resumption.* This scale refers to the frequency and manner of resumption of the main task after interruption. The score is arbitrarily set at 4 for each automatic resumption on the part of the subject: 3 is given when resumption occurs on the reminder of the experimenter that the problem is not yet solved: 2 when the experimenter directly requests the resumption: 1 when the subject refuses to resume the task after the interruption. Each interruption is scored separately. The patient here scores 6: 4 for an automatic first resumption and 2 for a second resumption on the request of the experimenter. He gives up before a third interruption is undertaken. The scale is fairly objective. Again certain unreliability is undoubtedly introduced by the manner of the experimenter's reminders and requests.

5. *Psychological departure.* A. *Attempted phantasy solutions to the real problem.* By psychological departure is meant any departure from the situation in a "psychological" way, i.e. through attempting phantasy solutions or through day dreaming about other problems. The toy tennis racket and the toy piano were used in the problem to serve both as substitute goals and as stimuli to incite phantasy or substitute solutions to the problem. The preoccupation of the subject with the substitute stimuli or the report by him of phantasy solutions was carefully recorded. When no such behavior was shown the score of five was arbitrarily assigned. For each incident of phantasy behavior, (such as "I will hypnotize it over" or "I will cut off my feet and crawl to it" or "the little piano will grow up if I wait long enough") and for each incident of behavior with the substitute goal one point is subtracted from the score of 5.* Here our expectations that such behavior would be frequent were not fulfilled. To all intents and purposes normal individuals showed no such behavior

* Asking whether the substitute goal had something to do with the problem was not counted as nearly every subject noted its presence.

and the psychiatric subjects showed it rather infrequently. There were some exceptions to this. The patient here scores 3. He fantasizes an invention which "could strike the note by electrical control" and says, after striking a note on the toy piano, "This one would suit me as well as the other." The scoring is of course arbitrary but reasonably objective.

5. *Psychological departure. B: Flight from the situation.* Here was noted every behavior of the individual which indicated a psychological departure from the situation through daydreaming or through attempting to engage the experimenter in conversation about matters other than the problem at hand. When no such behavior is shown an arbitrary 5 is assigned. For each such behavior one is subtracted. The patient here scores 3. On two different occasions he tried to engage the examiner in conversation, once about certain "injustices" he had suffered in the outside world, once about the "injustices" he was suffering from one of the staff doctors. Like the scoring on 5 A this is reasonably objective but highly arbitrary. In both cases only the incidence of "departures" rather than their psychological significance for the individual are noted.

6. *Tension.* Here we are interested in the development of disorganized or diffuse behavior which may indicate internal emotional tension. We observe the rise of emotional tension rather than the tension which the patient shows habitually as a part of his illness. Indicative of increasing tension are inability to sit still, walking around, smoking, cursing, actual aggressive outbursts against the situation or the experimenter. When initial signs of tension actually subsided in the experiment the arbitrary score of 1 was given: when no signs of increasing tension were noted the arbitrary score is 2: with slight increase as indicated by fidgeting, smoking, etc. the arbitrary score is 3: a considerable increase as indicated by inability to sit still, continuous smoking or playing with hands scores 4: great increase as indicated by cursing, aggressive outbursts, actual agitation scores 5. The patient in question scores 3 in that he walks around and smokes several cigarettes. This scale is only a semi-objective rating scale. Different observers might disagree as much as one point but would probably not disagree as much as two.

7. *Aspiration.* Here is meant the level of aspiration or the patient's demands on himself with regard to finding the third solution. 1 is arbitrarily assigned to those patients who wish to fail: 2 is assigned for indifference: 3 for "would like to succeed": 4 for "really anxious to succeed": 5 for "really must succeed." The ratings are made on the basis of the patient's introspections. The patient chosen for illustration is marked 3.5, his subjective feelings falling between 3 and 4. In those cases where through mutism or agitation, no subjective estimate by the subject was possible the experimenter made the rating on the basis of his observations. The method of scoring is quite subjective but gives us an important psychological datum.

8. *Effect of competition.* We are here interested in the effect of the suggestion, "Only 40% get the third solution" on the level of aspiration of the patient. This information is gained partially by observing the reactions to the suggestion and partially by the later introspections of the patients. Here 1 is assigned when the level of aspiration falls on competition ("I couldn't possibly be in the upper 40%, I might as well give up"); 2 is assigned when level of aspiration is unaffected: 3 when there is some rise: 4 for a sharp rise: 5 for a feeling of "must" ("I have to be in the upper bracket," "If only one percent of these people here got it I'd be one of them"). The patient here was given a score of 4. ("In real life I'd feel I must get it. Here I want very much to be in the upper group.") The method of scoring is again quite subjective but again gives us a real psychological datum.

9. *Blame.* The patient is asked whom he blamed for his failure and how he felt concerning his failure. Here of course one gets a wide variety of response. The data are reported as falling into four categories. *N* indicates no one—the patient felt neither blame nor guilt feelings. *S* indicates self—the patient blamed himself or felt guilty because he couldn't get it. *Sit* indicates situation—the patient blamed his hospitalization, the experimenter, or his sickness. *M* means meaningless—the question made no sense to the subject. The rating of the illustrative patient is here *Sit*. ("I would not have failed in a real situation only the injustices of this hospital made me fail.")

10. *Nearness to life.* The patient is asked on conclusion of the experiment whether he feels that the behavior he has exhibited in the experiment is similar or dissimilar to his real life reactions to frustration. Here again there was a wide variety of response. The responses could be roughly classified as: *A*, i.e. affirmed in general; *D*, i.e. denied in general; or *M*, i.e. meaningless in the sense used above. The illustrative patient here denied sharply that his real reactions to frustration were similar to those in the experiment.

The above paragraphs should indicate to the reader something of the types of behavior shown and the method used in evaluating them. The question arises, do frustrating situations always give rise to frustration? We have sought to put the subject in a *blocked goal situation*. Whether or not such a situation really frustrates the individual depends of course, on the nature of his drive to the goal. By a frustrating situation we mean one in which the adjusted individual should show signs of frustration. Whether or not we actually frustrated some groups—the schizophrenics for instance—does not primarily concern us. We are concerned with the behavior shown in a situation which *normally* is a frustrating one. Consequently we refer to reactions to a frustrating situation rather than reactions to frustration. At the present time the test has been administered to some 183

individuals. The test is given so far as possible during examination of all newly admitted patients.* It is further desirable to test the individuals soon after admission in order to prevent other patients from telling them about the "trick" of the problem, and in order that the experimenter's observations will not be colored by knowledge of the clinical case record. In some cases, however, it was only possible to test the patient some weeks after admission. In only three cases had the subject heard of the "trick" of the problem and in only two did the patient convince himself that there was no third solution. These cases are of course not considered in the data.

TABLE II
Classification of Cases

Group I.	Control group: sophomore students.....	20
Group II.	Schizophrenics (other than paranoid form).....	34
Group IIA.	Group II without clinically atypical patients.....	27
Group III.	Paranoid schizophrenics.....	16
Group IV.	Manic depressive (manic).....	5
Group V.	Manic depressive (depressed).....	11
Group VA.	Group V without clinically atypical patients.....	7
Group VI.	Manic depressive (mixed or agitated).....	6
Group VII.	Hysteria including pathoneuroses and neurasthenia.....	10
Group VIII.	Obsessional-compulsion neuroses.....	17
Group IX.	Neurotic depression.....	10
Group X.	Neurotic character.....	12
Group XI.	Chronic alcohol addiction.....	33
Group XII.	Essential hypertension.....	9
Total.....		183

Table II gives a psychiatric classification of the subjects tested based on the psychiatric diagnoses as reached in staff conference. Several points need some elucidation.

The control group was made up of twenty sophomore students from the writer's elementary psychology course. They came as voluntary subjects to avail themselves of the opportunity to take part in a psychological experiment. All of the members of one elementary lecture section agreed to take part. They represent a very homogeneous age, and educational group, and have a certain similarity of interests.

* It is contraindicated of course for extremely agitated and non-ambulatory patients.

For this reason we can not accept them as a fair sample of the total adult "normal" population. They do represent a fairly well adjusted group psychologically.

At the Menninger Clinic the diagnosis of schizophrenia is usually only subdivided into paranoid and nonparanoid categories. Consequently we have not separately treated hebephrenia, catatonia and simple forms. Group II A excludes those schizophrenic patients who were either recovered, remarkably improved or who had not yet developed the acute psychotic episode at the time of testing. It consequently may be considered more representative of schizophrenia than Group II. This procedure was again adopted with regard to Group V. Group V A represents only acute psychotic depressions.

Group VII includes all the cases of psychoneurosis where the complaints were chiefly somatic as opposed to Group VIII which includes the psychoneurotics whose complaints were chiefly psychic. There were not enough cases to warrant separate treatment of all the finer shades of psychoneurotic diagnostic categories.

Group XII represents a special group of research cases on essential hypertension for whom the chief clinical findings have already been reported by Karl Menninger.¹⁵ The other groups should be adequately characterized by the given diagnoses. Although the test is also given to patients with demonstrable encephalopathies and organic psychoses, we have not yet seen enough of these cases to warrant reporting them in this paper.

Inspection of Table II indicates marked discrepancies between the incidence of cases in the various categories. This comes from the fact that incidence of admission for the various categories is highly variable. Some categories, such as schizophrenia and chronic addiction to alcohol include enough cases to warrant statistical treatment. Others such as manic-depressive psychosis, manic phase, and hypertension contain far too few cases to warrant statistical treatment. For this reason the statistical data reported in the following section are not examined from the standpoint of the theory of sampling. Certain means are probably reliable, others may shift sharply with the acquisition of more data. We must also not forget that subjective factors enter into many of the behavioral ratings. The only excuse for tabulating the results statistically at all is that by so doing a considerable amount of protocol data may be condensed into little space.

RESULTS

In the present report we shall be concerned with the type and variability of behavior shown by each psychiatric category. There would be certain undoubted advantages in starting with the behavior of the individual subjects in the experimental situation and attempting classification of reactions on this basis, without regard to clinical diagnosis.* The existing psychiatric diagnostic categories are probably based more on descriptive symptomatology than on underlying psychodynamic processes. Furthermore, as all psychiatrists know, assignments of diagnoses to many cases are faulty. The whole problem of nosology undoubtedly needs clarification and any experimental method which could help with this clarification should be exploited. We believe that the reactions of patients to a frustrating situation undoubtedly can be utilized to lead to nosological classification and in later publications we shall go into this aspect of the problem. In presenting the first results however we believe classification of reactions in terms of existing diagnostic categories will better serve our purposes.

Table III gives the mean scores and variability coefficient for each of the groups for each of the scores.†

Examination of the actual distributions of scores for each group indicated rather marked discontinuities in many cases and the lack of clear cut central tendencies in others. This is partially shown by large variability coefficients, but even these do not show anything in detail about the distributions. Statistical measurements of variation may be equal whether caused by a wide normal scatter, or by a few markedly atypical cases. In order to give a fairer picture of variability than is afforded by the variability coefficients without giving complete distributions for each psychiatric category we tabulated the results given in Table IV. Here the ranges between set points for all the different behavioral categories are given in percentages of the group in question.

Tables III and IV combined show us the average scores, the varia-

* This was pointed out to me by Drs. Karl Menninger and Robert Knight.

† The variability coefficient is calculated by the following formula: $V.C. = \text{Average Deviation} / \text{Average} \times 100$. In other words it represents what percentage the average deviation is of the average. It is used rather than average or standard deviation since we are interested in comparative rather than absolute variability.

TABLE III

Showing Mean Scores and Variability Coefficients

The columns with Roman numerals refer to the designations of Table II, the rows with Arabic numerals refer to the designations of Table I. In each of the rows the upper figure indicates mean score, the lower figure the variability coefficient. The answers for items 9 and 10 are tabulated under the designations given above. In some categories the total cases reported under 9 and 10 do not agree with the totals reported in Table II. This is because items 9 and 10 were first considered after a certain number of cases were tested.

	I	II	IIA	III	IV	V	VA	VI	VII	VIII	IX	X	XI	XII
1	4.9 02	3.9 15	3.8 16	3.9 18	3.8 13	4.4 11	4.1 07	4.3 07	4.8 06	4.7 06	4.7 08	4.7 06	4.7 09	4.9 02
2	6.4 53	9.8 39	10.2 37	8.9 34	6.6 23	6.5 35	8.7 31	7.8 39	9.0 35	5.6 14	8.9 35	6.6 23	7.1 35	7.3 30
3	4.6 11	3.6 31	3.5 31	3.8 24	4.4 11	4.5 16	4.4 19	4.3 14	4.2 12	4.7 06	4.5 09	4.6 09	4.5 16	4.6 09
4	9.7 38	4.1 53	3.6 53	5.8 25	3.0 40	5.6 46	5.2 54	5.2 56	6.6 49	10.4 20	6.8 53	6.3 44	5.5 49	7.3 35
5A	5.0 00	4.7 11	4.7 11	4.7 11	4.5 15	4.5 11	4.8 06	5.0 00	4.8 06	4.5 13	4.4 13	4.5 16	4.8 06	4.7 09
5B	4.9 03	3.1 32	2.9 31	3.4 24	4.1 22	4.0 25	3.9 28	4.1 20	4.3 14	4.5 13	4.6 13	4.6 09	4.8 06	4.5 11
6	3.2 22	2.3 25	2.3 25	2.7 22	3.0 13	2.7 30	2.5 48	2.8 18	3.0 16	3.9 13	3.0 30	3.1 23	3.2 13	3.2 16
7	3.8 13	2.4 21	2.3 17	3.1 16	3.0 07	2.9 21	2.7 18	2.7 22	3.7 08	4.1 13	3.4 21	3.6 16	2.9 24	3.4 0.9
8	3.7 16	2.4 17	2.3 17	3.0 23	2.6 20	2.8 29	2.4 25	2.4 38	3.3 15	4.0 15	3.5 20	4.0 13	3.1 23	3.6 19
9 N S Sit. M	11 7 2 0	0 2 6 20	0 1 6 14	0 5 1 10	0 1 1 3	1 8 1 1	0 5 1 0	3 2 0 0	1 4 0 2	2 12 2 0	1 7 0 1	2 9 0 1	3 15 0 5	0 8 0 1
10 A D M	19 0 1	4 4 16	1 7 15	7 4 5	2 2 1	5 3 3	2 2 3	3 0 1	5 4 0	10 4 0	8 1 0	6 3 3	6 14 3	3 5 1

bility coefficients, the tabulated ranges for each psychiatric group for each behavioral category. As such they represent the chief results of the research. These tables are included in detail for two reasons. They establish norms for our experimental material and allow the

interested reader to compare average behavior and the variability of the various groups. To most readers such statistical tables have little meaning so we append a brief account of the actual behavior of each group.

TABLE IV
Showing the Distribution of Scores in Percentages

		I	II	IIA	III	IV	V	VA	VI	VII	VIII	IX	X	XI	XII
1	1-3	00	18	18	13	20	00	00	00	00	00	00	00	00	00
	3.1-4	00	48	64	57	60	54	72	67	20	12	30	17	24	00
	4.1-5	100	34	18	30	20	46	28	33	80	88	70	83	76	100
2	Over 10	10	48	56	32	00	27	29	33	40	00	30	08	18	12
	7-10	20	15	16	13	40	27	42	17	20	12	40	34	22	44
	Under 7	70	37	28	55	60	46	29	50	40	88	30	58	60	44
3	1-3	05	50	52	25	00	18	29	17	10	00	00	00	09	00
	3.1-4	05	18	24	44	60	09	00	33	60	18	40	34	24	33
	4.1-5	90	32	24	31	40	73	71	50	30	82	60	66	67	67
4	1-5	25	82	80	37	80	45	57	83	40	06	40	50	48	22
	5.1-10	00	12	16	50	20	55	43	00	40	35	40	42	45	44
	10-	75	06	04	13	00	00	00	17	20	59	20	08	07	34
5A	1-3	00	09	12	06	00	00	00	00	10	00	10	17	00	00
	3.1-4	00	12	08	19	40	27	00	00	10	24	30	17	12	33
	4.1-5	100	79	80	75	60	73	100	100	80	76	60	66	88	67
5B	1-3	00	62	76	32	40	36	43	33	10	06	10	00	00	00
	3.1-4	00	15	12	44	00	09	00	17	40	12	20	34	15	33
	4.1-5	100	23	12	24	60	55	57	50	50	82	70	66	85	67
6	1-3	25	87	88	81	80	72	72	83	70	18	50	58	54	55
	3.1-4	75	13	12	19	20	18	14	17	20	46	50	25	33	33
	4.1-5	00	00	00	00	00	10	14	00	10	36	00	17	13	12
7	1-3	30	87	92	56	80	73	86	83	10	18	40	33	57	22
	3.1-4	60	13	08	44	20	27	14	00	80	46	30	51	33	66
	4.1-5	10	00	00	00	00	00	00	17	10	36	30	16	10	12
8	1-3	30	91	96	50	80	64	86	83	50	31	40	17	45	33
	3.1-4	50	09	04	50	20	36	14	00	50	25	40	50	48	44
	4.1-5	20	00	00	00	00	00	00	17	00	44	20	33	07	23

Control Group. In so far as this group represents "normal" or "adjusted" individuals we may describe "adjusted" or "normal" reactions to frustrating situations. Cooperation is excellent, and the possible solutions are arrived at rather rapidly and with insight. On interruption there is the tendency to return automatically to the

problem, and to return repeatedly. There is no tendency to be satisfied with irreal or phantasy solutions and practically no tendency to leave the problem psychologically.* Some emotional tension results from the frustration but not an extreme amount. Aspiration is rather high and rises on competition. If the problem of blame or guilt occurs at all it is referred to the self. Behavior in the experimental situation seems similar to real life reactions to frustration.

The control group shows less variability in behavior than any of the psychotic groups and less than most of the psychoneurotic groups. On the whole it is highly standardized. The only strikingly high variability coefficients are on items 2 and 4. Variation in time of solution is probably of no significance for our purposes. The presence of five members out of twenty (cf. Table III) who score very low on item 4 (tendency to resumption) is worth comment however. These five individuals also scored relatively low on items 6, 7, and 8. Follow-up interviews indicated that two of these had definite psychiatric problems (one a severe neurotic depression, the other a wish to "flunk out" of school), and that one other was very doubtful about the existence of a third solution. The other two seemed well adjusted. The individual scoring highest on items 4, 6, 7, and 8 later described himself as a "terribly compulsive sort of guy."

We may roughly characterize the "normal" individual as one who in a blocked goal situation is able to form a segregated tension system, which is persistent but which discharges diffusely on continued frustration without the development of extreme emotional tension. He has a relatively high level of aspiration which reacts upwardly to social pressure.

Non-paranoid Schizophrenia Group. The schizophrenic group deviates most markedly from the normal and shows the greatest variability in itself. This variability is so great that it is almost impossible to speak of a schizophrenic type of reaction to a frustrating situation. Keeping this in mind we may still give an hypothetical picture based on our averages. Cooperation is very poor, solution time very long, insight poor compared with the control group. There is a marked decrease in the tendency to resumption. Pure phantasy solutions occur and there is marked evidence of leaving the field psychologically.† Little emotional tension is developed, the level of aspiration is low and is but little affected by competition. The problem of

* Dembo's (7) experiment on which ours was based varied in so many respects, particularly in the severity of the frustration, that the results of the two set-ups are not comparable. This is mentioned because Dembo's paper reports much greater variability in normal behavior than we found.

† In many cases of course the subject is never "in the field." As was pointed out above, however, we are interested in observing behavior in a "frustrating situation" rather than creating frustration.

blame and guilt is not a real problem nor is that of the "nearness to life" of the experimental situation.

Although many of the schizophrenics were not deficient in *all* the categories, there were *none* completely within the normal range. Some were cooperative and made insightful solutions of the two first sorts but these showed very low tendency toward resumption, very low tension, very low level of aspiration. Others who were uncooperative and showed tendency to "leave the field" showed rather high automatic resumption tendencies but in a manner which can be described to the clinician as schizoid. Two appeared almost normal until the questions for ratings 9 and 10 were asked. These were quite meaningless to them.

The schizophrenic finds it difficult or impossible to set up segregated tension systems with regard to an objective frustrating situation. It is very difficult for him to establish rapport with the examiner. Those tensions set up discharge relatively easily. Emotional tension and aspiration are not developed. Social pressure means little to him.

Paranoid Schizophrenia Group. The behavior of the paranoid schizophrenic falls between that of the control group and the other schizophrenics in practically every respect including that of variability. Although the cooperation score is about the same as in schizophrenia, the paranoid is quicker, shows more insight into the possible solutions. The tendency to resumption is greater than in schizophrenia, and there is less tendency to leave the field psychologically. There is more emotional tension developed, level of aspiration is higher and this is more affected by competition. In a greater percentage of cases the problems of blame and nearness-to-life have some meaning.

The behavior of the paranoid schizophrenic group shows in many respects a great variability and unpredictability of behavior compared with the control group. For this reason the picture given above is a somewhat hypothetical one. Some paranoids showed behavior which approached that of the control group. Others showed behavior which could not be distinguished from schizophrenia. We do think it significant, however, that the group as a whole so clearly distinguishes itself from the non-paranoid schizophrenias.

The reactions of paranoid schizophrenics to a frustrating situation may be summarized as follows. He has some difficulty in setting up isolated tension systems with regard to objective life situations. Those tensions set up discharge quite easily. The emotional tension developed is slight, the aspiration level is definitely subnormal, and social pressure has some effect on it, but again this is subnormal.

Manic-Depressive, Manic Group. The five cases studied here really do not warrant statistical treatment. Since the variability is comparatively small however we may give the behavior of the average or hypothetical case. Cooperation is very poor, but can be established so that the possible solutions are quick and relatively insightful.

The tendency to resume interrupted acts is very slight (even less than in schizophrenia). There is some tendency to leave the field, some emotional tension, a low degree of aspiration which is but little affected by social pressure. The problem tends to be meaningless.

The picture we gain of manic behavior in the test situation correlates very well with our clinical ideas of the manic phase. The individual is able to set up segregated tension systems but these discharge very easily. He has no persistence and is ready to give up under any pretext.

Manic-Depressive, Depressed Group. The manic-depressive depressed individual shows more cooperation than the manics, he is slowed down considerably more than the manic and shows about the same degree of insight. All of these differences are slight and probably statistically unreliable. The higher tendency to resumption, the lower degree of tension, lower level of aspiration, and lesser effect of competition may however represent real differences. The two phases present about the same variability.

Manic-Depressive, Mixed Group. This group is also too small to allow accurate statistical treatment. In general the index figures for it fall between the depressive phase and the manic phase where there are differences between these phases. With the exception of the time differences and the rather marked differences in tendency to resumption all of the manic depressive groups follow a similar pattern.

The major functional psychoses all show striking deviations from the control group. In the case of the psychoneurotic groups and the groups showing defective character, such deviations are not so striking. Each of these categories does show deviations from the normal in respect to some behavior and some of the groups show rather marked deviations in several behaviors. The psychoneurotic group which shows most consistent and significant deviation from the normal is the obsessional-compulsion neurotic group. We may characterize this group as being relatively unable to allow segregated tension systems vicarious discharge on frustration. This viewpoint would fit in very well with our clinical psychiatric picture of the disease. This finding is most clearly seen in Table IV. For behavioral categories 4, 6, 7, 8 this group has a much higher percentage in the upper ranges. The obsessional compulsion neurotic sets up segregated tension systems with ease but once set up they are "overpersistent," leading to an unusually high degree of tension, unusually high level of aspiration, and a sharp rise in aspiration level under social pressure. They have the feeling often expressed in reply to questions concerning their level of aspiration that, "I must succeed but I am doomed to fail."

The other psychoneurotic and characterologically defective groups do not present so clear a picture. Certain tentative conclusions about them may be made however. The group most clearly approximating the normal is that of the essential hypertension cases. This is worth

reporting because our modern psychiatric ideas of hypertension would indicate that this disease shows emotional etiological factors but that they are probably deeply unconscious. [Cf. Alexander.²] Neurotic depressions and hysteroid neuroses both show slowing down and easy discharge of tensions but otherwise the picture approaches the normal. Neurotic characters (many of whom were also alcoholic) and chronic alcoholics show behavior which is very similar. With the exception of the obsessional-compulsion neurotics however none of these categories can be described psychologically from the result of this experiment alone with much accuracy.

CONCLUSIONS

The results of the observations reported allow us to formulate the following tentative conclusions which are of general psychiatric interest.

1. The behavior of psychotic and psychoneurotic individuals in a frustrating situation is much more variable and unpredictable than is similar behavior by normals. Schizophrenic behavior is most variable of all in this respect. Furthermore the behaviors shown by the variously diagnosed groups show so much overlap that diagnostic categories cannot be said to represent discrete disease entities but rather simply convenient points on some continuum such as regression or retreat from reality. This is not to be taken to mean that the various psychiatric categories vary *only* in this respect. There are undoubtedly other "dimensions" of personality than regression. This conception of mental disease categories is becoming more and more generally accepted and may be said to be a basic concept of psychoanalytic and organismic psychiatry.

2. If the behavior demonstrated by our control group may be looked on as normal or adjusted, the various psychiatric categories may be ordered with regard to deviation from the normal. With regard to the functional psychoses the most deviate group is certainly the schizophrenic, the next most deviate the manic-depressive psychoses, and the least deviate the paranoid psychoses. The obsessional-compulsion neuroses are most clearly distinguished from the control group among the psychoneuroses. This order follows almost exactly that first conceived by Abraham (1) and later developed by many psychoanalysts to describe the depth of libidinal regression in the various mental diseases. Our results thus confirm the psychoanalytic classificatory psychiatry.

3. From the observations reported here there is developed the possibility of the approximate description of personality structure in the various psychoses through use of dynamic conceptions. In nearly every case we have been able to characterize the ease of building and discharge of segregated tension systems, the level of aspiration and the effect of social pressure upon it. These represent only first approximations and further refinements on technique must be found to objectify our rating scales. We have thus far developed only a semi-objective procedure whereby rough index figures may be assigned. From such indices which are of only topological significance at the present time we may hope to proceed to real measurements in time. We believe that our observations indicate the validity of this type of approach in psychopathology and our next step must be further to validate and objectify the methods of observation.

SUGGESTIONS TOWARD FURTHER RESEARCH

Our estimates of tension and of level of aspiration are particularly influenced by the experimenter's subjective impressions. To arrive at a greater validity for estimates of psychological tension some method of physiological index is indicated.

Many methods of recording the physiological concomitants of emotion have been worked out. Most of these are complex however and require the subject to remain at rest. Consequently we could not avail ourselves of the various techniques used by lie-detectors and behavioral multipolygraphs for continuous readings. It is still possible, however, to measure such physiological processes before the experiment, at the time of greatest apparent tension in the experiment, and after the experiment when the subject realizes that the third solution is impossible. At the present time we have such readings of blood pressure on the group of essential hypertension cases. All of these were rated subjectively as showing an increase in emotional tension. In every case the systolic blood pressure rose during the experiment and fell afterwards. A few cases of schizophrenia where the subjective rating of tension was under 2, (i.e. diminished during the experiment), and a few cases of compulsion neurosis where subjective rating of tension was over 4 (i.e. greatly increased during the experiment), showed changes in systolic blood pressure during the experiment. The schizophrenics showed slight drops and the compulsion neurotics slight rises. The data are far too incomplete to attempt any correlation between the sphygmomanometric readings and the experimenter's estimates, but the possibility is developed of gaining a more objective measurement for item 6. We plan to make such sphygmomanometric readings routine.

To arrive at a greater validity for our estimates of aspiration level we have adopted a modification of Kohs¹¹ block test. The subject is asked to estimate the time he will take on each construction and so sets his level of aspiration. By falsifying to the subject his actual time the experimenter is able to create psychological feelings of success and failure. By reporting falsified norms for others' actual time before having the subject set his own time the experimenter is able to exert social pressure. This test is being standardized and will be reported later in detail.

At the present time this test has been given to twenty schizophrenics, ten paranoid schizophrenics, and ten compulsion neurotics in connection with the main experiment. For these individuals the behavior in the test and the estimate made in the experiment are usually in very good agreement. Although it is too early to report detailed results it seems likely that schizophrenics are unaffected by either success or failure or by social pressure in their level of aspiration and the level of aspiration is not well correlated with the level of attainment. Paranoid schizophrenics are more in touch with reality in this respect. Compulsion neurotics, on the other hand set a high level of aspiration, which is greatly affected by social pressure and success, but which is also not well correlated with the level of attainment, because failure does not tend to lower it. Our experiences with control subjects in this test would indicate a much closer correlation between aspiration and attainment in them than in compulsion neurotics. All of these findings fit well in with the data tabulated in Tables III and IV.

The problem of the reliability of the test also needs to be attacked. The test can not be repeated as in fairness to the patients the "trick" must be shown. Consequently similar frustrating situations must be found as variants. These must be different enough that the subject does not perceive he is again being tricked. So far we have not been able to find variant forms which are enough like the original to allow exact comparison of the various items. Two variants have been used, however, with results which are suggestive.

In the first of these the Hanfmann-Kasanin (9) test of concept formation is given in the following manner. Division of the blocks on the basis first of color and then of form are accepted as the first two solutions. The third solution is made impossible by changing the designations of several of the categories originally set up by Hanfmann and Kasanin.

The second variant is the problem of connecting houses with wells through pipe-lines without having the pipe-lines cross. Two wells may be connected with each of two houses, (the first solution) and

four wells may be connected with each of two houses (the second solution) without any crossing of pipe lines. To connect three wells, however, with each of three houses is topologically impossible. To give this problem spatial objectivity we use small model houses and wells and pieces of string to represent pipe lines.

Both of these variant forms develop behaviors similar to those of our original situation and one at least of them may usually be repeated on subjects previously tested in the original problem. Such repetitions show a similarity of behavior easily discernible to the experimenter.

On most of the subjects tested we have available also Rohrschach tests, I.Q.'s, and Luria technique records of controlled associations. For all of them we have very complete case histories. As data accumulate we hope to make correlations between these variables. We believe the observations with regard to behavior in a frustrating situation may have importance for diagnosis, prognosis, and in evaluating the results of special therapies. [Cf. the suggestions in the paper of Brown and Orbison.¹⁹]

SUMMARY

In this paper are reported the results of observing the reactions of some one hundred and fifty patients in a frustrating situation and comparing them with twenty control subjects in the identical situation. The mode of observation is that of a controlled interview rather than a precise experiment. From these observations we have devised rating scales of varying objectivity and compared the various psychiatric categories. Some findings of general psychiatric interest are reported. Suggestions towards improving the reliability and validity of the techniques are made. The work continues in progress.

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FIFTH ANNUAL POSTGRADUATE COURSE

April 17-22, 1939

The annual Postgraduate Course in Neuropsychiatry will be given again in April 1939 by the staff of the Menninger Clinic. In the four previous years of its existence physicians in general practice, psychiatrists, neurologists, surgeons and other specialists from nineteen states and one foreign country have attended.

Many physicians, realizing the inadequate instruction in psychiatry they had in medical school, and discovering often that as many as fifty per cent of their patients have functional disorders or are "just nervous" or neurotic, have taken advantage of this opportunity to hear a systematic, practical presentation of dynamic psychiatry. For psychiatry no longer deals only with the insane, but with emotional disturbances, minor and major, which produce neurotic illness, maladjustments, behavior disorders and functional diseases in a large part of the population.

The course lasts five and one half days and the enrollment is limited to thirty. The fee of \$35.00 includes the noon luncheons which are served at the Sanitarium. Detailed final programs will be ready later and will be mailed on request. Address Dr. Robert P. Knight, The Menninger Clinic, Topeka, Kansas.

The tentative program for 1939 follows:

PROGRAM

MONDAY, APRIL 17

10:00 a.m.	Opening Remarks.....	C. F. Menninger, M.D.
10:30 a.m.	Orientation Lecture.....	Karl A. Menninger, M.D.
11:30 a.m.	Psychological Factors in Medical and Surgical Conditions.....	William C. Menninger, M.D.
2:00 p.m.	Case Presentation, illustrating methods of examination and study of a case.....	Douglass W. Orr, M.D.
3:00 p.m.	Personality Development: Motives.....	Karl A. Menninger, M.D.
4:00 p.m.	Personality Development: Psychic Structure.....	
8:00 p.m.	Smoker	

TUESDAY, APRIL 18

9:30 a.m.	The Neurological History and Examination.....	Norman Reider, M.D.
10:30 a.m.	Techniques of Personality Examination.....	Karl A. Menninger, M.D.
11:30 a.m.	The "Nervous Breakdown".....	Fritz Moellenhoff, M.D.
2:00 p.m.	Case Presentation, illustrating a "nervous breakdown".....	William C. Menninger, M.D.
3:00 p.m.	Gastrointestinal Neuroses.....	Robert P. Knight, M.D.
4:00 p.m.	Differential Diagnosis of Neuroses and Psychoses.....	
8:00 p.m.	Group Discussion of Case Histories presented by members, Moderator: Karl A. Menninger, M.D. Assisted by: Edoardo Weiss, M.D.	

WEDNESDAY, APRIL 19

- 9:30 a.m. The Special Characteristics of Neurological Disease... *Norman Reider, M.D.*
 10:30 a.m. Schizophrenia... *Karl A. Menninger, M.D.*
 11:30 a.m. Psychotherapy: Principles... *Robert P. Knight, M.D.*
 2:00 p.m. Case Presentation, illustrating a schizophrenic psychosis
 3:00 p.m. Psychiatric Hospital Treatment... *William C. Menninger, M.D.*
 4:00 p.m. (A) The Use and Abuse of Sedatives
 (B) Handling of Relatives of Mentally Ill Patients... *Norman Reider, M.D.*

THURSDAY, APRIL 20

- 9:30 a.m. Depressions... *William C. Menninger, M.D.*
 10:30 a.m. Organic Expressions of Emotional Conflict... *Karl A. Menninger, M.D.*
 11:30 a.m. Psychotherapy: Applications I... *Robert P. Knight, M.D.*
 2:00 p.m. Case Presentation, Depression
 3:00 p.m. Symposium on Child Psychiatry—Normal upbringing, normal and abnormal deviations, remedial methods (moving picture demonstrations)
Douglass W. Orr, M.D., Robert P. Knight, M.D., Hanford L. Auten, M.D.
 5:00 p.m. Picnic at Indian Hill

FRIDAY, APRIL 21

- 9:30 a.m. Treatment of Neurological Diseases... *Norman Reider, M.D.*
 10:30 a.m. Psychotherapy: Applications II... *Robert P. Knight, M.D.*
 11:30 a.m. Psychoanalysis as a Method of Psychotherapy... *Ernest Lewy, M.D.*
 2:00 p.m. Case Presentation, illustrating indications for psychoanalytic treatment
 3:00 p.m. Psychological Factors in the Relationship of Physician and Patient
Karl A. Menninger, M.D.
 4:00 p.m. "Shock" Treatment in Psychiatry... *Norman Reider, M.D.*
 8:00 p.m. Group Discussion of Case Histories presented by members,
 Moderator: *Robert P. Knight, M.D.*
 Assisted by: *Edoardo Weiss, M.D.*

SATURDAY, APRIL 22

PSYCHIATRIC ASPECTS OF SOME CLINICAL SYNDROMES

- 9:30 a.m. Cardiac Neuroses... *William C. Menninger, M.D.*
 10:30 a.m. Alcohol and Drug Addiction... *Robert P. Knight, M.D.*
 11:30 a.m. Impotence and Frigidity... *Karl A. Menninger, M.D.*

BOOK NOTICES

Common Neuroses of Children and Adults. By O. SPURGEON ENGLISH, M.D., and GERALD H. J. PEARSON, M.D. Price \$3.50. Pp. 320. New York: W. W. Norton, 1937.

This is a systematic textbook presentation of psychoanalytic psychopathology by a competent analyst and a pediatrician who wrote "Psychiatry in Childhood" for the Oxford Loose Leaf Medicine. The book is well organized, makes judicious use of illustrative case material, and can be heartily recommended for medical students and physicians interested in psychoanalytic psychiatry. (R. P. K.)

Psychotherapy. By PAUL SCHILDER, M.D. Price, \$3.50. Pp. 344. New York: W. W. Norton & Co., 1938.

It is unfortunate that this book which has a good title and contains a few good ideas, is on the whole very unsatisfactory because of its loose, obscure style and more particularly because of its essentially hostile attitude toward psychoanalysis, especially the need for the proper training of those essaying to give psychoanalytic treatment. (K. A. M.)

New Frontiers of the Mind. By J. B. RHINE, Ph.D. Price, \$2.50. Pp. 274. New York: Farrar and Rinehart, 1937.

The reviewer has found nothing in this publication to make him reverse his often expressed opinion that Rhine's results arise on the basis of as yet undetected sensory cues. The results are undoubtedly not due to chance, but until Rhine performs the controls that the skeptical demand, one can see no advantage in postulating "extra" sensory perception. The data are "hand picked" and the most obvious controls refused. (J. F. B.)

Mental Conflicts and Personality. By MANDEL SHERMAN, Ph.D. Price, \$2.25. Pp. 319. New York, Longman's, Green and Co., 1938.

This book gives an excellent description of the main conflict situation and its possible consequences in the development of the human personality. Not one isolated conflict makes a person into a neurotic, but a long series of conflict situations. The genesis and the nature of conflicts are given, later the attitudes toward conflicts, the necessity of every civilization to create conflict situations, the main conflict of inferiority and insecurity, the very important sex conflicts, and the attempt of their solution in neuroses and antisocial behavior are described. (M. G.)

PUBLICATIONS BY MEMBERS OF THE STAFF

GROTJAHN, MARTIN. Psychoanalysis and Brain Disease; Observations of Juvenile Paretic Patients. *Psychoanalyt. Rev.* 25:149-164, April 1938.

The author has personally observed 32 cases of juvenile paresis in an attempt to determine the practical application of psychoanalysis to these patients. By using the example of alcohol intoxication, he shows that the "body-mind problem" is not a problem of the supremacy of one over the other, but one of their relationship and reaction to each other. Even in organic cases the inner life history is not interrupted and may be investigated by psychological methods and psychoanalysis. He outlines further possibilities of psychoanalytic studies in patients with brain disease.

MENNINGER, WILLIAM C. AND SHIFFLET, BYRON L. Psychologic Aspects of Physical Therapy. *Archives of Physical Therapy*, 19:533-539, September, 1938.

The authors discuss the psychological factors operative in both the application and results obtained in physiotherapy. They suggest that the beneficial effect, in part, may be due to satisfaction of psychological needs, and that these needs can be determined and utilized in the prescription of definite procedures.

KNIGHT, ROBERT P. The Psychoanalytic Treatment in a Sanatorium of Chronic Addiction to Alcohol. *J. A. M. A.*, 111:1443, October 15, 1938.

The author attempts in non-technical terms to discuss the application of psychoanalytic principles to the sanatorium regimen and the use of psychoanalytic technique in the individual psychotherapy of chronic addicts to alcohol. Interference by the relatives and difficulty in keeping the patients in treatment long enough are two main obstacles. Alcoholics are classified as "essential," "reactive" and "symptomatic," these groups being differentiated in the discussion. The prognosis for most alcoholics is doubtful but combined sanatorium care and psychoanalysis is recommended as the treatment most likely to accomplish a permanent personality change. Results on twenty cases treated by the author are summarized.

MENNINGER, WILLIAM C.: Psychiatry in Nursing Education, *Forty-fourth Annual Report of the National League of Nursing Education*, 1938.

The paper maintains that psychiatry should be included as a fundamental subject in the educational curriculum of all nurses and that it not only should be presented in lectures but that every nurse should have experience in a psychiatric institution—not because she may do psychiatric nursing, but because she is then prepared to meet the psychological component present in every illness.

Bulletin of THE MENNINGER CLINIC

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NUMBER 3

A CLASSIFICATION OF TUMORS OF THE BRAIN*

BY JAMES W. KERNOHAN, M.D.

Sections on Pathologic Anatomy and Surgical Pathology, The Mayo Clinic,
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Tumors of the brain may be divided into two main groups: (1) the primary tumors, namely the gliomas, and (2) a larger group which includes neurofibromas, meningiomas, and pituitary adenomas. I would like to restrict my talk for the most part to the classification of gliomas of the brain and spinal cord. From the pathologist's point of view the gliomas are the most interesting and varied of these tumors. Prior to 1926, gliomas, for the most part, were referred to simply as gliomas. At that time Baily and Cushing introduced the classification of gliomas which has since been in use; it has been modified from time to time but is now the basis of almost all work on these tumors; the classification at first seemed very complicated but, in reality, it is much simpler than it at first appeared to be.

The entire nervous system develops from the medullary epithelium. Tumors arising from or representing this type of cell (medullo-epitheliomas) are extremely rare. Medulloblastomas are considered highly malignant neoplasms. They occur usually in the midline of the cerebellum of children but may even be found in the cerebrum and spinal cord. The cells of these tumors are rather typical; they are shaped like a carrot and have an oat-shaped nucleus that is somewhat elongated. The cells have a tendency to form rosettes or partial rosettes; this frequently is one of the main characteristics. These tumors respond rather satisfactorily to roentgen therapy but an excessive dose over the site of the tumor as well as over the brain and along the entire spine is usually required, since they tend to grow downward and to become implanted along the spinal cord and nerve roots.

* Lecture delivered at the annual Postgraduate Course in Neuropsychiatry, The Menninger Clinic.

Most pathologists would like to have a special stain for each type of tumor and cell so that if the tissue was properly stained the diagnosis could be made without difficulty. This has not yet, and probably never will be, completely attained. However, some silver nitrate stains are specific for nerve cells. Cajal's stain is a gold chloride stain that is specific for astrocytes, but not for primitive astrocytomas or spongioblastomas. Hortega's silver-carbonate method is selective for adult healthy oligodendroglia and all microglia.

Recently, Dorothy Russell demonstrated that the tumor cells that have been referred to as "polar spongioblasts" are in reality astrocytes and so the tumors that previously have been referred to as "polar spongioblastomas" are really astrocytomas. Tumors made up almost entirely of astrocytes have been found everywhere in the nervous system. They do not occur in any special place except in the substance of the brain and spinal cord. These tumors infiltrate the surrounding brain so that it is impossible to tell where the tumor stops and where normal tissue begins; there is no zone of demarcation. Fibrous astrocytomas feel like rubber. The average life history of these tumors has been about twelve years; sometimes much longer. They are now being recognized earlier than they were previously. The tumors may be made up entirely of glial fibrils. They do not respond to roentgen therapy but they sometimes undergo partial spontaneous degeneration that results in the formation of cysts.

Sometimes two or more types of cells are found in a glioma. Then the pathologist must use his judgment as to the best group in which to classify the tumor. I have used the method of the dominant cell though this is not entirely satisfactory.

Astroblastomas are rare tumors. One might designate an astroblast as an immature or juvenile astrocyte. These tumors are distinguished from fibrous astrocytomas by the absence of intracellular fibrils when stained with Mallory's phosphotungstic acid hematoxylin stain and Cajal's gold chloride and sublimate method. They are essentially slow growing tumors and offer a good outlook for the patient. Astroblastomas are most common in the cerebrum, but have been found in the spinal cord, brain stem and cerebellum.

PROTOPLASMIC ASTROCYTOMAS

A tumor made up of protoplasmic astrocytes is a very rare tumor in my experience. Some years ago I made such a diagnosis three times

within one month; in each case the greater portion of the tumor was removed surgically and the prognosis was considered good. A few months later two of these patients returned to the clinic with the decompression wounds bulging. Both were operated on again and this time the tumor in each case was found to be a typical spongioblastoma multiforme.

In dealing with many gliomas the surgeon must make up his mind whether simply to remove the tumor or try to remove all of the involved tissue. Very few gliomas are encapsulated and almost all tend to invade the brain. If the surgeon removes only part of the tumor the neoplasm will continue to grow but if he removes all of the tumor he will probably destroy some normal tissue, and the patient's condition will be worse than it was before the operation. This question comes up frequently at operation on gliomas.

EPENDYMOMAS

These tumors grow slowly and belong to the same category as the astrocytomas and ganglioneuromas. They are more common in the spinal cord than they are in the brain. I have seen several cases in which patients who had this type of tumor are still alive twenty-five years following operation, but in most of these cases the tumors involved the spinal cord. In 109 cases of ependymoma which I have recently studied, more than 38 per cent of the patients are living five years after the operation. This is a much better result than that obtained in most cases of carcinoma or sarcoma.

OLIGODENDROGLIOMAS

I feel that these tumors are closely related to the ependymomas as the two types of cells frequently grow together in one tumor. On routine section oligodendrogliomas have an appearance simulating a cross section of a honeycomb. The nuclei are small and stain dark with hematoxylin, the cytoplasm is frequently absent or vacuolated. The tumors tend to degenerate and form cysts; they frequently contain small collections of calcium which sometimes can be seen on roentgenologic examination. Oligodendrogliomas are slow growing neoplasms and respond well to surgical intervention and roentgen therapy.

SPONGIOBLASTOMA MULTIFORME

One type of tumor that is interesting from the point of view of the pathologist, is the spongioblastoma multiforme. This tumor has a

marked variation in the size and shape of the cells and frequently also contains multinucleated giant cells. The term is a rather satisfactory one since these tumors have varied characteristics both grossly and microscopically. This term was first used by Globus and Strauss, in 1927, and has been only partially accepted because Bailey later used the term "glioblastoma multiforme." These tumors are very malignant and the prognosis is uniformly bad.

This type of tumor made up about 33 per cent of all gliomas in Cushing's series, and on this account it is a very discouraging type of neoplasm. A few years ago it made up 25 per cent of the gliomas of the central nervous system observed at The Mayo Clinic. Many of the tumors involved the spinal cord and only a very few of these tumors were classified as spongioblastoma multiforme. During the last few years there seems to have been an increase in the number of these tumors that we have encountered and it is probable that in our series these tumors would now represent about 30 per cent of all gliomas of the central nervous system. They may be found anywhere in the brain but are more common in the cerebrum than they are in the cerebellum. They are not encapsulated and do not infiltrate as deeply into the surrounding tissue as do astrocytomas or types of tumors that grow more slowly. There is a tendency for degeneration, necrosis and hemorrhage to occur in these neoplasms.

Glial fibrils are found in fibrous astrocytomas but not in other types of glioma. They are never seen in the cells of a spongioblastoma multiforme. Proliferation of the endothelium of the blood vessels is common in spongioblastoma multiforme, so much so that it would almost seem that one is dealing with two types of tumor because of this proliferation.

GANGLIONEUROMAS (NEUROCYTOMAS)

Neurocytomas or ganglioneuromas are rare neoplasms in the central nervous system; they are more commonly found in the sympathetic nervous system. However, I have observed such tumors in the cerebrum, cerebellum and spinal cord. The cells are characteristic and very closely simulate nerve cells with Nissl's granules, large vesicular nuclei, prominent nucleolus and dendrites. They have an affinity for the Bielschowsky silver nitrate impregnation method or one of its numerous modifications.

THE REACTION OF PSYCHIATRIC PATIENTS TO PHYSICAL AND NEUROLOGICAL EXAMINATIONS*

BY NORMAN REIDER, M.D.

To observe, record, and evaluate only the traditional findings concerning the soma of the patient in the routine physical and neurological examinations is to omit significant data concerning the personality of the patient. These are obtainable from observing his reaction to the procedures.

It has been common knowledge for many years that patients give such information of themselves by their movements and attitudes during interviews and examinations, but too frequently such data are either overlooked or intuitively evaluated and integrated with other findings without further mention. To cite an isolated example the statement is quoted by Michaels (1) that "a tremor of the eyelids in the Romberg position occurs with phobias." While it is admitted that such isolated observations cannot always be accounted for by dynamic interpretations, it is the thesis of this paper that very often such data can be integrated with the findings of the psychiatric examination, and thus lead to a more complete understanding of the patient. Such was the implication of the work of Levy (2), whose method of approach to the problem in children was to ask questions of the child during or at the end of the examination concerning the various parts of his body.

The integration of the responses to these questions with the psychiatric examination seemed so valuable that three years ago at the Menninger Psychiatric Hospital the use of Levy's method was begun. However, it was soon found that a strict adherence to this method was not applicable to many adults, and that better results were obtained by leaving the psychiatric-physical examination in the form of observations of the spontaneous remarks and behavior of the patient during the examination, enhanced at times by provocative questions concerning an outstanding physical feature.

* Read before the American Psychiatric Association meeting at San Francisco, California, June 10, 1938.

There are several methods of treating such data, of which the best seemed to be that used by Dembo and Hanfman (3) in their study of the psychological reactions of patients to admission to a psychiatric hospital. By the use of this method it has been possible not only to evaluate the individual patient's reactions to the examinations, but also to group the patients in accordance with their acceptance of the reality of the "situation-of-being-examined." Over three hundred patients have been thus studied and their reactions constitute in order of their degree of their acceptance of the reality of the situation, the following groups.

DESCRIPTION OF THE PSYCHOLOGICAL GROUPS

1. Distortion of Reality of the Examination.
 - a. Refusal to be examined.
 - b. Preoccupation with psychosis.
 - c. Fear of the examination.
 - d. Partial insight with bizarre behavior.
 - e. Eagerness to cooperate to prove absence of illness.
2. Good Insight into the Examination but with Apprehension.
3. Affirmation or Denial of Somatic Complaints in Hypochondriacs.
4. Unconcern and Indifference to the Examination.
5. Denial of Somatic Illness with Excellent Insight.

Increasing Degree of Acceptance of Reality of Examination as such.

1. *Distortion of Reality of the Examination*

a. *Refusal to be examined.* A very small group of patients looked upon the examinational procedure as completely unnecessary, and it was clear from their behavior that their attitude was merely part of their general reaction to hospitalization. They denied that they were ill in any way, projected all of their difficulties on to those who had brought them to the hospital and made easy transfer of these attitudes to the hospital staff. All of these patients were highly paranoid.

b. *Preoccupation with psychosis.* This group in a sense is very similar to the first mentioned in its lack of insight into the situation, and in the fact that hospitalization seemed to make no difference in behavior. These patients were so lost in their own hallucinatory episodes or depression that they were oblivious to what went on about them. They were inattentive and unresponsive. However, even the severely depressed patients did react somewhat more favorably and seemed in closer contact with reality than schizophrenics; these depressed patients betrayed some contact with reality by occasional shifts in the

position of their body to assist the examiner; otherwise, they were completely passive.

c. *Fear of the examination.* The reaction of this group varied from a high degree of combativeness, as if the patient were motivated by a drive to protect himself from attack, to lesser manifestations, such as fright at the approach of an instrument, or refusal to have certain parts of the body examined, usually the genitalia. It seems clear that to patients of this group, whose psychosis interfered with their discriminatory abilities, the physician is considered an attacker. One of these patients made a complete recovery and could be questioned about the episode of her examination. She was a 28-year-old woman who had a schizophrenic reaction following an episode of marital infidelity. She said, "Yes, I remember that very well but I was very sick then. I remember that I was afraid of what you might do to me. I was so afraid of being hurt."

d. *Partial insight with bizarre behavior.* A small group of schizophrenic patients, although giving evidence of realizing the significance of the examinations, showed much bizarre behavior indicating incomplete acceptance of the situation. Some of them took occasion to clown during various neurological tests with unusual postures and mannerisms. With this group incidents occurred such as opening the mouth as the doctor approached with the stethoscope. That even such bizarre behavior is at times amenable to interpretation and understanding is illustrated by the case of a 34-year-old school teacher who had had several "nervous breakdowns," and within the year prior to her admission to the hospital had become hypochondriacal and paranoid. The study of her case showed that one of the chief dynamic factors was an intense conflict centering around suiting her parents by doing what they considered right, and at the same time attempting to gratify some of her instinctual desires. The standards that had been set for her created such a severe conscience that the problem was a soluble one to her only in a psychotic way. During the neurological examination when asked to put her finger to her nose she invariably placed it somewhere else upon her face. A few days later when the subject of masturbation was broached to her she denied the practice, pleading ignorance, and saying, "I just wouldn't know how to do it even if I wanted to. I wouldn't know where to put my fingers. I didn't know whether they should go in the vagina or in

my rectum. The other day when you told me to put my finger on my nose I just couldn't make it go where it was supposed to."

In one patient a type of reaction was observed having many of the elements of the previous sub-groups. A 19-year-old college boy had had several periods of catatonic stupor and excitement following his initiation into a fraternity, concerning which he seemed considerably disturbed by the possibility of injury or attack. When he arrived at the hospital he was very cooperative, had good insight into the entire situation, and willingly submitted to physical examination. But during the examination he became rigidly tense, and when asked to show his strength by demonstrating his hand grip he became physically disturbed and tremulous. When he was approached with the reflex hammer he became agitated and momentarily went into stupor.

Clearly what occurred in this patient was a re-enactment, in miniature, during the physical examination, of what had occurred in the precipitating phase of his illness.

c. *Eagerness to cooperate to prove absence of illness.* Patients in this group, all paranoid, eagerly grasped at the opportunity of having a physical examination in order to demonstrate that they were free of any defect. A typical response was, "I want you to examine me and you'll find there's nothing the matter with me and that there is no reason why I should stay here." In every one of these patients the assumption was implied that the physical findings would prove them to be in good mental health.

2. *Good Insight into the Examination but with Apprehension*

Many patients, though apparently understanding the nature of the situation of being examined, betrayed considerable anxiety and apprehension. Occasionally, there was a prelude to this type of demonstration shown by delays in preparation for the examination. Questions of the following type were asked: "You want me to get *all* undressed?" "My shoes and stockings too?" Even when these patients were assured that the examiner desired them to be completely disrobed, several of them still kept on some articles of clothing. These individuals showed varying degrees of apprehension including tremor, visible increase of tension, reluctance to having their bodies touched, and jerking away whenever the examiner approached. In many, the reaction was accompanied by profuse cold perspiration, blanching

of the face, and tachycardia. All of these patients were conscious of their reactions, and many of them volunteered information that they had been "nervous" or "ticklish" when examined by a doctor. In others, who did not have this maximum reaction, there was good cooperation and no demonstration of apprehension until they were tested for sensation with a pin, or until blood was drawn from a vein for laboratory studies. In a number of these cases, sufficient to give the impression that the same dynamic factors may hold true for the entire group, psychiatric study and treatment had progressed to a point where it could be seen that the type of reaction was similar to that which is aroused when strong latent homosexual trends threaten to break through and become overt.

Some of the patients in this group did not maintain their anxiety throughout the examination, but were able to overcome it by various defense mechanisms which were identical with the devices used in other life situations by these patients to overcome anxiety. (a) Toward the end of the examination a few women overcame their anxiety by becoming unduly childish, playful and somewhat amorous. (b) A small group of patients, chiefly men, overcame their anxiety by ridiculing and minimizing the importance of the examination.

3. *Affirmation or Denial of Somatic Complaints in Hypochondriacs*

There was a large heterogeneous group of patients, some of whom were psychotic, and some severely neurotic, in whom hypochondriacal complaints were foremost and constituted the center of their discussion during the psychiatric examination, with emphasis upon the organic aspects of their complaints. (a) Some of these patients took advantage of the physical and neurological examinations to demonstrate to the examining physician the details of their somatic preoccupation. They spent a great deal of time describing and indicating carefully the course of their pain, assisting the examiner in palpation of the abdomen so that he might feel more accurately the exact site of the disturbance. Their attitude thus manifested not only their distrust of the physician's ability to find things for himself, but also revealed a strong drive to hold on to their hypochondriasis. Many of these patients responded poorly to later treatment. (b) In contrast with the above group there were patients whose histories and present illnesses were full of hypochondriacal complaints, but who, surprisingly

enough, made no spontaneous mention of, or even minimized, their hypochondriasis during the examination. Further study of many of these cases revealed that their attitude was manifestly an unconscious denial of their statement that they were suffering from organic disease. It was not surprising, then, to find that the members of this subgroup, on the whole, responded well to psychotherapy.

4. *Unconcern and Indifference to the Examination*

This group of patients, chiefly neurotic characters, all men, showed no interest in the examination whatsoever; questions provoked only brief and often bored replies from them; moreover, they revealed no interest in any of the findings of the examiner. Some of these, however, did show that they were covering up by their indifference an unusually deep concern about possible damages and losses to themselves. Further study of some of these patients showed that their indifference was a defense against these feelings of anxiety about their own bodies. Several alcoholics who reacted indifferently to the examination later, in periods of anxiety, asked the examiner for reassurance as to their bodily health, and wanted re-examinations, because they had a fear that they had damaged themselves by their drinking.

How profound the feeling of concern underlying the attitude of indifference may be is seen from the following case. A 32-year-old alcoholic appeared to be somewhat bored by the examination and unusually jocular about it. Some difficulty occurred in finding his right testicle. He laughed and thought that the examiner's difficulty was a great joke. This same air of indifference characterized his whole attitude toward his hospitalization for his alcoholism. After he began psychotherapy, however, he overcame this reaction. Later, he related with great feeling the story of how he had lost this testicle through injury by an accidental kick by a playmate. He related this incident to his feelings of impotence and discovered a close relation between this symptom and his alcoholism. When he recalled the physical examination that had taken place many months before, he said, 'I remember how I laughed at the time, and I was thinking to myself, 'I'm laughing, but it's no joke to me.' ''

Similar remarks of jocularity and unconcern were frequently provoked in the examination of men when reference was made to unusually

large breasts or small genitalia, and again these patients not infrequently disclosed later a high degree of sensitiveness and concern about these organs.

5. *Denial of Somatic Illness with Excellent Insight*

Many of the patients who were examined, like the previous group, also tended to minimize the importance of somatic findings, but did so on a much greater reality basis than the group that reacted with indifference. Many of these patients had been aware of the emotional nature of their difficulties for quite some time, and came specifically to the clinic or hospital for treatment. They cooperated willingly throughout the examination, and usually at the beginning or during its course would remark, "I doubt that you will find anything the matter with me. It's entirely nervous." Such remarks indicated a complete acceptance of the situation on a firm reality basis.

DISCUSSION

Besides these data dealing with the reactions which depend upon the degree of contact the patient has with reality, and his various defenses against anxiety, there are further data which can be considered an integral part of the psychiatric study. Among this additional information is chiefly material similar to that discussed by Michaels. Even so, there are indications that such findings can in a sense be more directly related to the examination and to the examiner than is traditional. For instance, three women on examination had transient hemihypalgesias of the hysterical type which were sharply delimited to the mid-line. During the examination the use of suggestion led to the disappearance of this finding. It is noteworthy that in these cases the transient hemihypalgesia was on the side of the body closest to the examiner. In none of these were there any history of similar findings, and it is apparent that the examination, and the examiner himself, were factors in the production of the sign. The hemihypalgesia in these patients, all of whom exposed themselves unnecessarily during the procedure, was a method used to shield themselves from some of the feelings that were aroused by the examiner. Several obsessional neurotics during the neurological examination consistently responded with the statement that the latter of two consecutive pin pricks was always the sharper. This pattern fits well with the general tendency

that they showed for being excessively accurate, thus obscuring the slight discriminatory effort necessary to evaluate the obvious equality of the pin pricks. The same emotional conflict which had driven them to an over-zealous regard for truth and accuracy in everyday affairs thus manifested itself in the neurological examination.

Several experiences, especially with young schizophrenic patients by whom the examination was interpreted as an attack, led to the practice of delaying as long as possible the examination, should there be any tendency to react with fear. Likewise, for similar reasons, rectal examinations were omitted in male schizophrenics unless there was adequate indication from the history to proceed. In two instances, mention during the examination of acneiform eruptions caused an exacerbation of psychotic behavior which interfered with the patients' recovery. It seems indicated then that in schizophrenics not too great importance should be placed upon physical findings, attention to which may be particularly traumatic to the individual.

Occasionally, in schizophrenics who have had histories of repeated examinations and laboratory procedures, usually in attempts to find an organic basis for their illness, we have been content with the abstracts of the findings of the previously visited physicians and clinics, and have not approached these patients for physical or neurological examination until a friendly relationship was established. In no instance have we regretted such delay, and we have been repaid by the establishment of a better rapport in these cases than in those in which the physical examination was done at a time when the patient feared it.

It is obvious that in some psychiatric patients the examinations are accepted as a matter of routine, and the practical advantages of utilizing the physical examinations as a part of the psychiatric study may be limited. In other words, in many patients the opportunity is present in the ordinary psychiatric interview to find out what the psychiatrist would like to know concerning what the patient feels about his own body. Furthermore, it is conceivable that a patient's reaction to an examination depends in part on the patient's appreciation of attitudes in the physician, and, hence, his attitude toward an examination by one examining physician will not be the same as toward one by another. But we have had sufficient opportunity for reexaminations by different physicians to impress us with the consistency of a type of reaction in any given patient.

One final clinical point may be mentioned as being of interest and also of psychological significance. Among these patients there was a relatively high percentage of physicians, and there was no distinguishing characteristic to differentiate the reactions of these physicians from those of other patients.

SUMMARY

1. The thesis is brought forward in this paper that the general reactions of the patient to physical and neurological examinations, his spontaneous remarks, his responses to questions, and gestures have a particular psychological significance and can be integrated with the personality study made by formal and traditional methods.
2. The reaction of the patient to such examinations is dependent upon the degree of his acceptance of the "situation of being examined," and his already established defenses against anxiety.
3. Various types of reaction are presented and their significance, especially in relation to dynamic mechanisms, is discussed.

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NOTES ON THE PSYCHOANALYTIC ORIENTATION OF THE SOUTHARD SCHOOL* **

BY DOUGLASS W. ORR, M.D.

Progressive schools in general are characterized by the use of special teaching methods designed to arouse the interests of their pupils and bring about the fullest development of their potentialities by the adaptation of the school milieu to the peculiar needs and abilities of the individual child. The psychoanalytically directed school goes further, especially when it deals with children whose emotional conflicts and personality problems require some kind of psychiatric re-education. No other group of children is so neglected in the United States. This indifference is a serious matter, for it is these children whose temporary difficulties, if not dealt with scientifically, tend to become firmly rooted and much more difficult to eradicate in later years. It is well known that the difficulty and expense of treating an adult is tenfold greater than that of treating a child, yet few children are given an opportunity to receive help and guidance during that period when it might change their entire lives and make them happy, productive citizens.

The Southard School is a progressive school under psychoanalytic direction where children under sixteen are given treatment and education by special methods. A child who enters the school is thoroughly studied from a medical and psychological point of view. History taking from the parents may require six to ten hours. The medical examination, after the child becomes adjusted to his new surroundings, is supplemented by a neurological examination, routine and special laboratory tests, skull x-rays, and the like. The psychological work-up includes intelligence tests, social maturity tests, and various special procedures to enable the staff to gauge the child's emotional reactions under varying circumstances. The responses to and results of these

* Presented in part at a Round Table on "Residential Treatment of Maladjusted Children," February 23, 1939, at the American Orthopsychiatric Association, New York City.

** The Southard School is a non-profit corporation affiliated with the Menninger Clinic and the University of Kansas.

tests are not only studied for their more obvious data concerning the physical and mental development of the individual, but also are viewed as evidence of the emotional development of the child (the psycho-sexual development, in psychoanalytic terms) and of the emotional conflicts within his personality.

On the basis of these studies of the "total personality"—of the whole child—the staff of the psychiatric school endeavors to determine each child's special needs and to plan for him a school program adjusted to them. Most symptoms of poor adjustment in a child, such as tantrums, stealing, running away, destructiveness, or failure to adjust to school, arise out of his inability to adjust to something in his home environment and can be alleviated in the more stable environment of the special school where psychoanalytically oriented teachers and therapists, working under medical and psychiatric direction, understand his emotional needs and conflicts and can help him to express them, sublimate them, or overcome their harmful effects.

Psychoanalytic experience teaches us that most of the difficulties which are found in neurotic children and which account for many of the worst behavior disorders in retarded children have as their causes disturbances in the emotional life of the child. From infancy onwards each one of us has had to learn to deal with feelings of love and hate directed toward other persons and toward ourselves. When these feelings are distorted or accentuated—in ways which we technically refer to as fixations, inhibitions, projections, introjections, and the like—they may cause trouble and may produce symptoms of neurosis or behavior disorder. One of the principal jobs of the special school which deals with such disorders is, after understanding their sources, to permit the expression of these distorted feelings or drives and then to direct their expression into channels which are more satisfying to the individual and more acceptable to the society in which he lives.

How does the Southard School attempt to achieve these general objectives? The answer lies in the organization of the school itself and in the many arrangements and techniques employed by its staff. It is the purpose of the following paragraphs to summarize a number of these as briefly as possible. The provision of an adequate physical plant and of a trained personnel must be taken for granted at the outset, for, indeed, the latter is probably the most important of all.

The children are in almost hourly contact with men and women

teachers and therapists throughout the day and evening and night. These trained men and women are objective, understanding, kind parent-images, who provide for the child an environment which is more constant than that from which most children come, and, at the same time, one that is especially designed for the needs of the child in a way that most homes cannot be. Each teacher or therapist, moreover, acts as counsellor to two or three children in the School. Each child feels therefore that a kindly but strong, and if need be firm, adult is especially interested in him and his fortunes and hence has that added measure of security. This child-counsellor relationship permits an identification by the child with an ideal "parent-image," which can be consciously used in the treatment and training of the child. This, in more technical language, is known as the use of the "transference situation" in education.

The grouping and handling of children within the school are likewise guided by psychoanalytic considerations. These measures offer many opportunities for meeting the emotional needs of the children and for leading them into more mature ways of behavior. One little girl, for example, came retarded in school, timid, afraid, almost a "shut-in" personality. In therapeutic conferences she evinced the desire (and need) for a "twin," i.e., a girl of her own age as a sort of exclusive sibling and companion. She was given a roommate who could, with some benefit to herself, fall in with this rôle, and the situation benefited both children. Another, somewhat older girl, just emerging from a long period of insecurity and hostility towards the world was given many little responsibilities and encouraged to identify herself with the teachers as a tactful leader and helper for the other children.

It is necessary, too, to free children of unnecessary taboos. The younger children are permitted to spend most of the time in a playroom or play yard (out of doors) which they may regard as a world of their own with only the impersonal barriers of hedges or walls rather than the personal, human restrictions of a series of "don'ts" and "mustn'ts." Other children are approached in more adult fashion on a "reality basis" and are made to see that the rules and restrictions are a necessary component of any sort of communal living. Punishment, when necessary, nearly always takes the form of temporary exclusion from group or school activities.

Among the special facilities of the School, the Lewis Sterling Craft Shop is one of the most important. From an analytic point of view, the work with tools and wood is not merely vocational training. More important, it serves the purpose of carefully prescribed occupational and recreational therapy. Projects are suited to the specific emotional needs of the children. Some must give vent to aggressive feelings, and are able to do so in hammering, cutting, tearing down and actual destroying of old boxes. Others must learn to substantiate their feelings of love for other persons, by constructive work, making gifts or favors for them. An old victrola which was aggressively dismantled by a former pupil is now getting a handsome new cabinet at the hands of a more constructive lad. Occupational therapy in the psychoanalytically oriented school is not a haphazard form of amusement, but a part of the patient's "medicine" which has a definite emotional value for him.

Arts and crafts are similarly used in the Southard School. One of the most universally applicable of them is fingerpainting; it has its attraction for oldest and youngest. In fingerpainting, which requires simple materials and almost no technique, the child may express many phantasies and feelings of which he often dares not speak. As he paints and expresses his ideas the teacher gets many suggestions as to his emotional wants and is often able to make interpretations which show the child what he is really trying to express. Fingerpainting is also an excellent, acceptable sublimation of a universal wish to play with dirt and serves to liberate the personalities of many children who have been unduly repressed in this regard. Fingerpainting therefore has both diagnostic and therapeutic value.*

Another interesting feature of the Southard School is the children's court. One of the children is a robed judge and others sit with him about a conference table. Complaints are asked for and heard. The children are permitted and soon learn to express their hostile feelings in words and to accept as well as pour out legitimate criticism. A teacher is always present as a "friend of the court," for without her the children would feel insecure, but it is always the child judge, aided by the opinions of the other children, who renders the verdict and imposes the fine or other penalty for misdemeanors.

* See "Encouraging Fantasy Expression in Children" by Jeanetta Lyle and Ruth Faison Shaw, *Bulletin of the Menninger Clinic*, 1:78-86, January, 1937.

The Southard School psychologists use standard intelligence tests for the children, but some of the newer "personality tests" are of psychoanalytic interest. The general purpose of these is to gauge the child's emotional reactions to various situations and to lead him to assume attitudes or express feelings which betray the deeper layers of his personality. Modifications of the Dembo and Luria tests permit observation of children's responses to frustrating or joyous experiences, and give more than a hint of a child's inhibitions with respect to pleasure or his inability to withstand disappointments. Another device of this sort is the Constructive-Destructive Test which was worked out at the Southard School by Dr. Nathan W. Ackerman.* With this procedure the child is given an opportunity either to build out of simple materials in imitation of something already built, or to create something new, or to destroy what has already been constructed and leave his material in chaos. Again, the observer gains insight into the child's fundamental tendencies as well as into his relative freedom or inhibition in expressing himself.

Related to some of these tests is actual therapy by means of play technique, a well established form of child therapy. In the Southard School analysis by play technique has been applied to both neurotic and retarded children. With the former, it has often been able to pave the way to the removal of the majority of symptoms which bring the child to us and to insure for him a more stable and adjusted personality. The use of psychoanalysis with retarded children has had few trials, but at the Southard School it has been shown that in some of these children, at least, intellectual retardation is an expression of emotional conflict such that the child does not wish or dare to be intelligent.

Sex education forms a definite part of the school program although it is not forced on the children. Teachers and therapists are prepared at all times to answer without embarrassment or inhibition the children's questions in terms adjusted to the age and capacities of the children. Animal pets are a part of the school milieu, and it usually happens that the children's questions arise from their observation of their pets. In some neurotic children, simple explanation of aspects of sexuality which the child has observed but not understood (except

* Ackerman, N. W.: Constructive and Destructive Tendencies in Children. *Am. J. Orthopsychiat.* 7:301-319, July, 1937, and 8:265-285, April, 1938.

in terror) leads to a marked relaxation of his personality and to more freedom in play and in his relations with adults and other children.

Finally, the school is a training center for psychiatrists, clinical psychologists, and teachers. Resident physicians at the Menninger Clinic, as a part of their training in psychiatry, spend three to four months at the Southard School. Graduate students in psychology at the University of Kansas come to the school as "psychological internes" and work under the direct supervision of the graduate faculty in that field. The University of Kansas also sends teachers who wish to prepare themselves for work with "exceptional children" in the public school systems. This work is still in a developmental stage, but one objective of the school is that of becoming a training center in child psychiatry and education, thus providing a much-needed opportunity for adult graduate students from many universities to study and to exchange points of view in psychiatry, psychology, and education.

GENETIC FEATURES IN THE CHARCOT-MARIE-TOOTH TYPE OF MUSCULAR ATROPHY

BY H. HARLAN CRANK, M.D., AND NORMAN REIDER, M.D.

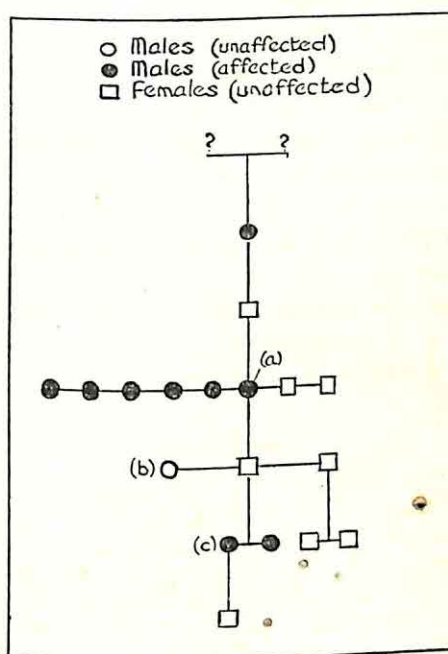
Genetically, the above type of heredodegenerative disease has been described by many writers (1, 2, 3, 4, 5, 6), including all types of transmission—direct, indirect, dominant, recessive, and sex-linked. Even consanguinity and coincidental nervous disease have been mentioned. However, there is one genetic constellation, the sex-linked variety, which has been previously reported only by Herringham (1) in 1888, a case of which, because of its rarity, we have thought worthy to report. In the sex-linked type of transmission, instead of the random distribution of characteristics in Mendelian ratios, we find that one sex only is affected, and the opposite sex, while unaffected, serves to transmit the disease.

In the case to be reported, the family tree is shown to emphasize the sex-linked pattern of transmission through six generations, males only being affected but the disease being transmitted only by females.

CASE REPORTS

A twenty-four-year-old married man, a hardworking paperhanger by trade, on the first neurological examination stated that he "was born" with his illness and that he had noted no progression of his condition, but members of his family felt that there had been. He has been married four years and has a daughter eighteen months old who is apparently unaffected. The patient's complaints seemed to be limited to difficulty in opening of and grasping with his hands and difficulty in walking. He also described occasional dizzy spells during which he saw only one side of a person. No particular side was affected but he felt as if he were wearing blinders on one side. Another rare transient subjective disturbance was described as a "sleepy feeling" on one side of his face lasting a few minutes and followed by a frontal headache lasting about an hour. The patient recalled little about his childhood history but knew that he was not retarded in learning to walk, although he did not talk plainly at first. The patient has an older brother similarly affected, and an investigation of his familial medical history revealed the information summarized in the diagram in Fig. 1.

Neurological examination of the patient revealed the following: There was an ataxic, waddling gait, along with a slight lumbar scoliosis and lordosis. The muscle strength was moderately diminished in the flexors and extensors of both hands, wrists, and forearms, while there was relatively little diminution of muscle strength in the lower extremities, that present being in the peroneal group and the dorsiflexors of the feet. Fibrillations were elicited only in the right triceps. All of the leg muscles were moderately atrophic, principally the peroneal group, including early atrophy of the distal ends of the thigh muscles. Deformities manifested from the muscle imbalance in-



cluded a mild bilateral pes cavus and bilateral hammer toes except for sparing of the great toes. In the upper extremities there was bilateral gross atrophy of the interossei of the hands, of the forearm muscles, and the distal portions of the upper arm muscles. Apparently the deltoids escaped, but the terminations of the biceps were involved, and the radial nerve involvement was predominant over the ulnar and median groups, resulting in bilateral claw-hand deformities. Muscle tone and irritability were markedly decreased over the affected areas, as only feeble to absent myotatic responses were elicited.

All of the deep reflexes were absent; there was a hyperreflexia of the superficial reflexes. No pathological reflexes were elicited.

There was a slight diminution of perception to light touch and to pin prick over the atrophic areas, the distribution being peripheral rather than segmental. Vibratory perception was absent below both knees and diminished slightly above to the sacrum. Vibratory perception also was diminished over the bony prominences of both wrists. The Romberg sign was positive. There was an ataxia of both lower extremities and clumsiness due to weakness of the hands. There was no speech disturbance, but there was some impairment of skilled movements of the hands and fingers.

The cranial nerves showed no pathological changes.

DISCUSSION

Ford (2), in a survey of the previous literature on genetic patterns of heredodegenerative diseases of the nervous system, found that the Charcot-Marie-Tooth type of muscular atrophy was transmitted as a dominant trait in the involved cases from twenty-five families, as a recessive trait in fifteen families, and as a sex-linked recessive in the one family reported by Herringham (1). This one family's tree embraced a span of five generations, including a total of ninety members.

As can be deduced from observation of the family tree in the above case (see Fig. 1), the original antecedents of the constellation are unknown. Furthermore, attempts to investigate whether or not this family is related to the one traced by Herringham (1) have not been successful. The important conclusions from the study of the above family constellation are: the absence of the disease in females, who alone may transmit it to males; the presence of a healthy male (b) in the offspring of an affected male.

We regret the absence of more definite information about the antecedents and lack of information regarding the progeny of the affected brothers of the maternal grandfather (a) of the patient. The present information strongly indicates that all affected members had involvement similar to that of the patient. It is interesting to note that, as one would expect, the maternal aunt of the patient (c) has two healthy female children.

From a practical point of view, it is apparent from examination of the family tree of the sex-linked variety of this disease that discretionary control of the marriage or fecundity of daughters of affected males should be instituted, if possible, and that by so doing, one might expect the disease to play itself out. In this family, certainly the patient's daughter should be advised in due time against having offspring. In

the case of the daughters of the patient's maternal aunt, who are not in the direct line of sex-linked transmission, it is highly speculative whether this disease might appear as a recessive trait.

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BOOK NOTICES

Outline of Psychiatric Case-Study. By PAUL W. PREU, M.D. Price, \$1.85. Pp. 133. New York, Paul B. Hoeber, Inc., 1938.

The standardized type of history taking and mental examination are presented here again in outline with brief explanatory notes. Dynamic considerations are ignored. (K. A. M.)

Child Psychology. By MARGARET WOOSTER CURTI. Price, \$3.20. Pp. 458. Second Edition. New York, Longmans, Green & Co., 1938.

A functionalist has written a child psychology without benefit of dynamic psychology. She thanks psychoanalysis for concepts of the "complex," and "compensation," if put into "definite psychological terms." Infantile amnesia (and a good deal more) is dismissed as follows: "Parents known to the author certainly do not infuse shame into their really happy children, but the children forget just as do those of the unenlightened!" The book is apparently an excellent compendium of present-day academic psychology. (D. W. O.)

Emotional Hygiene, The Art of Understanding. By CAMILLA M. ANDERSON. Pp. 242. Philadelphia, J. B. Lippincott Co., 1937.

This is a primer on mental health, primarily directed to nurses in training in a general hospital. It follows psychoanalytic principles. Parts of it, particularly those dealing with psychosexual development, are too sketchily presented to be convincing. The style is more advisory than explanatory. (W. C. M.)

Experimental Psychology. By ROBERT S. WOODWORTH, Ph. D. Price, \$3.80. Pp. 889. New York: Henry Holt & Co., 1938.

This book is the most comprehensive text yet to appear in the field of experimental psychology. It is much more than a collection of experimental facts. Considerable attention is paid to technique, the investigations reported have been well digested, and the book as a whole reflects the maturity and the catholicity of the author. (W. A. V.)

Biography of the Unborn: The First Nine Months. By MARGARET SHEA GILBERT. Price, \$1.75. Pp. 129. Baltimore: William and Wilkins Company, 1938.

This is a well-organized summary of the more recent material on human embryology, apparently designed for the use of the intelligent layman who wants to learn something about human development.

It should be useful for the physician whose patients are interested in learning about the processes by which they were formed. (H. L. A.)

New Contributions of Science to the Exceptional Child. Proceedings of the Fourth Institute on the Exceptional Child of the Child Research Clinic of the Woods Schools. Pp. 61. Langhorne, Pa. The Woods Schools, 1937.

These four papers present some endocrinological and neurological considerations of the problems confronting exceptional children, which offer interesting new approaches to the solution of their difficulties. (H. L. A.)

Psychological Factors in Marital Happiness. By LEWIS M. TERMAN. Price, \$4.00. Pp. 474. New York: McGraw-Hill Book Company, Inc., 1938.

For many years psychiatrists have been preaching that individual happiness seldom is based on environmental factors only, so it is extremely interesting to find that the psychometric approach used by the author to obtain information on marital happiness indicates exactly the same thing.

This study should be required reading for everyone who presumes to attempt to advise people in connection with marriage. The truly formidable nature of the statistical data presented need be no deterrent, since the summarizations of the chapters and of the book as a whole are clearly and effectively written. (H. L. A.)

Suicide, A Social and Historical Study. By H. ROMILLY FEDDEN. Pp. 351. London, Peter Davies Limited, 1938.

This is a gracefully written account of the attitudes toward suicide which have been crystallized into definite statements or actions throughout the history of the human race—the ancient philosophers, the early Christians, the writers of the Elizabethan and Victorian ages, the army, the common people of the day, etc.

The author is apparently only slightly acquainted with psychoanalysis or psychiatric concepts as such, but he indicates the suicidal nature of asceticism and martyrdom, not missing their provocative and aggressive aspects. The book abounds in quotations and refers to historical cases, unfortunately not very well documented. (K. A. M.)

The Technique of Contraception. By ERIC M. MATSNER, M.D. Pp. 50. Baltimore, Williams & Wilkins Company. Fourth Edition, 1938.

This is a most enlightening review of the good, mediocre, and bad methods of contraception. An analysis is made of the various reliable and relatively unreliable techniques, with the judicious remark that even the best is not perfect. (H. C.)

Personality. A Psychological Interpretation. By GORDON W. ALLPORT. Price, \$3.50. Pp. 588. New York, Henry Holt and Co., 1937.

This volume gives an extremely scholarly and well written résumé of the vast psychological literature on personality. All of the various schools are represented. It goes beyond the ordinary handbook in that the material is beautifully integrated and valuable methodological criticism is included. Despite the fact that the author shows the usual academic bias against psychoanalysis and that his espousal of personalism will convince but few, this work represents a contribution to psychological literature of the first importance. (J. F. B.)

Explorations in Personality; a Clinical and Experimental Study of Fifty Men of College Age. By HENRY A. MURRAY, M.D. Price \$8.50. Pp. 761. New York and London, Oxford University Press, 1938.

760 pages of small type set forth a theory of personality, a score of techniques used by more than a score of associates in the study of fifty college men, a summary of the results of these explorations, and a detailed case history and personality evaluation of one of them. The theory contains brilliant elements, but is rather complicated and neologistic; the techniques, not all new, are well presented. The book is a great forward step in the construction of a science of personality study. (K. A. M.)

NOTE: It is extremely interesting to compare these two books, both on the subject of personality, both by Harvard professors (who are friends), both coming out at approximately the same time. Allport is a sound, systematic, academic psychologist, who proceeds in the classical inductive, didactic manner. He condemns with obvious emotion "omnibus definitions" which "do no service to science," but he spends the balance of the nearly 600 pages in a presentation of trait psychology, which, itself, is an omnibus concept. Psychoanalysis stirs him to adjectives whenever it has to be mentioned; it is referred to as a "tremendous vogue."

Notwithstanding this, his book is clear, comprehensive, excellently supported with references, and contains clever charts and diagrams.

Murray, on the other hand, unfortunately for clarity, has almost no tables or diagrams, and he has some very dull technical descriptions, but his book sparkles with originality, with motion, with fearlessness, with openmindedness. He mentions very few other authorities (except Jung in whom he apparently has a curious obsessive interest). Murray is under the compulsion to do a certain amount of tabulating and classifying, and (more confusing to the reader) inventing new words and abbreviations, but in spite of all this, one has the feeling that to be examined by the Allport standard would be to have oneself described by a long list of nouns; whereas to be examined by the Murray method would be to be understood in terms of verbs. (K. A. M.)

Modern Society and Mental Disease. By CARNEY LANDIS, Ph.D., and JAMES D. PAGE, Ph.D. Price, \$1.50. Pp. 190. New York, Farrar and Rinehart, Inc., 1938.

This book is a carefully presented, clear summary of our statistical knowledge about mental illness, incidence, percentage of types, age, sex and some religion- and race-distributions. The figures are further refined as married-unmarried, economically dependent-economically comfortable, urban-rural and migrant-nonmigrant. A valuable and highly usable book. (W. LaB.)

The Conceptual Representation and the Measurement of Psychological Forces; Contributions to Psychological Theory, Volume I, Part IV. Price, \$5.00. Pp. 247. Durham, N.C. Duke University Press, 1938.

This technical monograph further develops and clarifies Lewin's conceptual framework of psychology which was first systematically presented in his "Topological Psychoogy" in 1936. The geometrical properties of hodological space are described, and examples of its application in psychology are given. The conceptual properties of psychological forces are discussed and various methods of measuring forces and valences are surveyed. The applications made are to relatively simple psychological problems (mazes, problem boxes, the obstruction box). The major concern is with methodological problems. (W. A. V.)

Child Psychology. By FOWLER D. BROOKS. Price, \$3.00. Pp. 585. New York, Houghton Mifflin Co., 1937.

This book represents an attempt to satisfy the growing need for a satisfactory text book in child psychology. It does not in the light of recent changes in the methodology of child psychology adequately meet the needs of such a text book, but it appears to be one of the best yet to be placed on the market. The book is valuable both for its broad biological background and for its thorough coverage of recent and relevant literature, both theoretical and experimental. A distinct contribution is the author's attempt to consider in a definite manner the problems of the applied psychology of childhood. (B. L. S.)

PUBLICATIONS BY MEMBERS OF THE STAFF

BROWN, J. F.: Freud vs. Marx: Real and Pseudo Problems Distinguished. *Psychiatry* 1:249-255, May 1938.

This article attempts to show where the real antitheses between Freudian psychology and Marxian sociology lie. Methodological similarities and subject-matter differences are stressed. The field of social psychology would be developed most rapidly by taking cognizance of the implications of psychoanalysis for sociology and vice-versa.

REIDER, N.: Hyperostosis Frontalis Interna and Degenerative Brain Disease. *J. Mt. Sinai Hosp.* 5:511-516, November-December, 1938.

The association of hyperostosis frontalis interna with degenerative brain disease is noted in two cases in this paper. The rôle that the hyperostosis played in the production of the clinical picture is discussed and is thought in these instances to be only of contributory etiologic importance. Nevertheless, the coexistence of the craniopathy in neuropsychiatric and endocrinopathic syndromes seems not to be due solely to chance and there appears to be a definite, though as yet obscure, relationship. From the clinical-pathological point of view it is important to stress that the cerebral changes are of a degenerative nature.

BROWN, J. F.: *Cooperation: The Need in the World Today*. Chapter I of the Yearbook *Cooperation*. Washington, Department of Supervisors, National Education Association, 1938.

This chapter introduces a Yearbook on the general topic, "the rôle of cooperation in democratic education." The present world scene is reviewed, the social psychology of competition and cooperation outlined, and psychoanalytic and social-psychological difficulties in the way of cooperation pointed out.

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PSYCHOTHERAPY IN ACUTE PARANOID SCHIZOPHRENIA WITH SUCCESSFUL OUTCOME: A CASE REPORT

BY ROBERT P. KNIGHT, M.D.

The case to be described in this report is noteworthy from several standpoints. Most patients as acutely disturbed as this boy was would be advised to enter a mental hospital, but his financial resources precluded care in a private institution and it was decided that psychotherapy was more important than institutionalization; the psychotherapy was of short duration, fourteen hours in all; and, finally, the patient recovered rapidly and has remained well adjusted without further psychiatric help for over five years. In this paper I shall describe the onset and course of the illness, the details of the psychotherapy procedure, and shall attempt to evaluate the factors which contributed to the unusually successful outcome.

The following data were assembled by another Clinic psychiatrist in the original case work up, before I began seeing the patient for psychotherapy:

CASE ABSTRACT

Identification of the case: A 20 year old, intelligent boy who had failed to make an adjustment in two attempts at college work because of severe feelings of inferiority, who had done poorly in several trials at working for his father in a small business, running away three times and returning after periods of three days to two weeks, and who had married a 19 year old girl three months before he was brought to the Clinic.

Statement of the problem: Acute delusions of infidelity directed against his wife; delusions of being drugged and "doped" by his wife; sleeplessness; inability to carry on any productive activity; impotence; and vague threats of homicidal aggressions against his wife's supposed paramours.

Chronological Survey: The patient was the middle child of a 52-year-old, upright, domineering, critical father who had had considerable trouble mixing with people when he was a boy, and a 50-year-old mother with whom the patient felt more at ease although he considered

her less intelligent and more superficial than his father. An older sister, age 26, had had some kind of a breakdown in college and had withdrawn from school. A younger brother, age 16, was the father's favorite. He was described as of strong character like the father, of good disposition, well-liked, but inclined to be jealous of his girl friend's attentions to other boys. The patient felt inferior to both his siblings.

The outstanding features of the childhood history were enuresis until about the age of 12 or 13, and a rather bungled circumcision which resulted in some deformity and adhesions. The patient did moderately well in grade and high schools, but not nearly as well as his sister had done. He went to a small college after graduation from high school at 17, but severe feelings of inferiority, which made him feel he was the black sheep of the family, became worse and he left school. The next fall he entered another small college and again left. He tried working with his father but ran away three times, feeling he was no good. He met his wife-to-be about three years before their marriage and had occasional dates with her but did not go with her steadily until a few months before their secret marriage. He had been married only three months when he came to the Clinic. At the time of his marriage he was trying to attend college, but soon gave this up and stayed at home with his wife and her parents, helping around the house, but was so obsessed with his ideas of his wife's infidelity that he spent most of his time following her about the house.

The patient had masturbated excessively throughout adolescence, with strong guilt feelings, and continued masturbating after marriage. A few months before the patient had begun going steadily with the woman he later married, he had been seduced into a homosexual affair by a bachelor music teacher. The patient was the passive partner and submitted to *coitus inter femora*, and mutual masturbation. He had always had a good erection in these contacts. The music teacher had apparently become somewhat anxious about the seduction and had urged the patient to court and marry the girl, who was known to both of them.

His wife was a virgin with intact hymen; the patient suffered from *ejaculatio praecox* as well as from insufficient erection, and had not been able to effect intromission. He would frequently masturbate several times during the night following an unsuccessful attempt at intercourse. His wife discovered him at this and reproached him severely, predicting that he would have pimples and lose his mind if he continued.

PSYCHOTHERAPY

With this information as a background, I began seeing the patient for daily interviews of an hour each. The first interview is worthy

of being described in some detail. The patient appeared looking rather haggard and sleepy, and although I indicated that he should sit in a chair opposite me, he sat down on the couch. He said he had had a sleepless night while trying to stay awake to check up on his wife. He had dozed off a time or two, and attributed this to her putting dope in his coffee to make him sleepy so she could keep a rendezvous with her brother who was sleeping in another room. Patient then asked if he could lie down on the couch. When I agreed, he did so and was fast asleep almost at once! I waited for three or four minutes and then gently awakened him and asked him if he had been dreaming while asleep. He thought for a minute and then said he couldn't remember anything, but that he had been having dreams that his wife was having intercourse with other men, he being an onlooker. He had regarded such dreams as proof that his suspicions were correct, and had originally confronted her with his dream, putting it as an accusation. She had of course denied any infidelities but he didn't believe her. Later he made up a number of similar dreams and "confronted" her with them from time to time.

I told the patient, at the end of this first hour, that I would like to talk with his wife a few minutes the next day and asked him to bring her along. She was a very attractive young girl, bewildered by this suspicious attitude on the part of her husband. She spoke frankly and convincingly, denying any interest in other boys. She said that all the time she was going with him before their marriage he had constantly criticized himself and run himself down, apparently to get her to reassure him that he was intelligent and capable, and she had so responded. She thought this was a peculiar way for a boy to court a girl, but she had not known of any evidence of his suspicions before their wedding, and since she did know of his potentialities and not only loved him but felt maternal toward him, she thought it would help him if she married him. He had wanted premarital intercourse but she had refused. She thought their unsatisfactory marital intimacies were just a part of getting adjusted to marriage.

When I saw the patient again the following day, he told me, without show of hostility, that he suspected me of having had intercourse with his wife. He spoke with an air of resignation. I remarked that apparently he fastened his suspicions on any man in the immediate environment, told him that I believed his suspicions to be incorrect

in all cases, but said I would like to hear about the beginning of these ideas. He then told me the following story.

Before the wedding, he used to drive past his fiancée's house on nights when he had no date with her to see if there were any other cars parked there. He knew that in the past she had gone with other boys and wondered if some of them were still dating her. However, he had no feeling of suspiciousness beyond this. As soon as they were married, however, he at once began to be suspicious. They lived with his wife's parents, and in this household were also his wife's brother and his wife, and a male cousin of the patient's wife. The patient accused his wife of being intimate with the cousin and made things so unpleasant that the cousin moved out. Since the brother's wife was away on a visit, the patient then accused his wife of incestuous relations with her brother. He based his suspicion on the fact that they looked at each other and "flirted" at meals, and were affectionate in a brother-sister fashion. Thinking that it was a bad situation for the young couple to be living in this environment, the parents advised them to move to the patient's home. Here the patient immediately fastened his suspicions on his own younger brother. His parents became concerned and tried a re-arrangement of bed assignments, putting the patient with his father, the patient's wife with his mother, and the brother alone in a third room. However, this did not help as the patient only remained awake, prowled around and tried to catch his wife leaving her mother-in-law's bedroom to go to his brother. All of the sounds made at night by sleeping persons—sighs, snores, coughs, heavy breathing and so on—the patient interpreted, as he lay awake, as a series of signals between his wife and the suspected man designed to inform each other of the patient's whereabouts and of his sleeping or watchful state. The patient would awaken his father and tell him of his suspicions. On several occasions the father arose, and took the patient to the bedroom where the two women were sleeping. However, the patient remained unconvinced, pointing out that his wife could have heard them coming and could have hurried back to bed to feign sleep.

The young couple then moved back to the wife's parents' home and slept together. The patient's suspicions and accusations grew worse. He inspected the bed covers before falling asleep and if they were more smoothed out or more wrinkled when he awoke, he accused his wife

of having had intercourse with her brother, cousin or former boy friend in this very bed, while he was asleep. He also accused her of masturbating. He himself would lie awake, listening intently to all the sounds his wife made, fantasizing her having intercourse with some boy, and often masturbating at the same time. On one occasion the patient insisted on tying his wife's wrist to his with a rope when they went to bed. She submitted to this in an attempt to convince him. He slept fitfully and in the morning the rope was still tied. However, he still thought she could have slipped her wrist out of the knot, had intercourse with one of the males in another room and then slipped her wrist back in the knot. It was after this incident that the whole family decided that the patient's jealousy and suspicions must indicate the presence of a mental illness, especially when he began accusing his wife of "doping" his coffee to make him sleep and made vague threats about knives.

All this time the attempts at intercourse had been quite unsatisfactory. The patient demanded intercourse (i.e., the privilege of making attempts at it) one to three times a night. If his wife demurred, he thought this was because she was already satisfied by one of her lovers or was saving herself for one of them.

The patient told this story somewhat haltingly, without displaying much resentment against either his wife or the suspected lovers. Rather, he seemed resigned to the idea. From the evidence that the patient's delusions fastened themselves onto all the significant males in the environment, that the patient had had a recent homosexual affair with more satisfactory sexual feelings than he derived from the marital intimacy, that his delusions were identical with his masturbation fantasies and with his dreams, it seemed logical to conclude that the patient *wished* to believe his wife was unfaithful and that he obtained vicarious pleasure from imagining her being sexually intimate with a man other than himself. This theory was confirmed by a slip of the tongue he made while describing the situation at his parents-in-law's home. In trying to say "Her mother and I and my wife—" the patient said "Her mother and I and *myself*—" Also he always referred to his wife as "she," never by her first name or by the appellation "my wife." It was apparent, then, that he was projecting his own femininity, aroused by his passive homosexual experience, onto his wife, and was identifying himself with her. He wished homo-

sexual contact with these men, denied it to himself, and projected the wish onto his wife. The delusion was, of course, supported by his knowledge of his own impotence, with the consequent lack of satisfaction by his wife. Her professed loyalty to him was interpreted by him as sticking to him because he was such an easy person to fool and run out on. His feelings of inferiority and impotence were also increased by his lack of a job, his being dependent on his wife's parents for support, and by their critical attitude toward his "laziness."

All of the above picture was clear by the third or fourth interview. I decided to make a direct interpretation to him of this construction after ventilating the homosexual experience and his feelings about it. He readily related the latter without much shame, placing the main responsibility for it on the older man who seduced him and who took the active rôle. He admitted that he had found it enjoyable, although he knew it was abnormal. When the music teacher finally wanted to terminate it and advised him to go with the girl and get married, the patient agreed that this would be a good idea. After establishing this background, I pointed out to the patient how he was trying to continue the satisfactions of the homosexual episode by means of his suspicions, fantasies, dreams and fabricated dreams which he made up to use as further accusations with which to confront his wife. I correlated all the confirmatory material related above, including the slip of the tongue, and he began to see how it all fitted together. Furthermore, by careful questioning, I elicited the fact that he felt some homosexual attraction to me in the transference, supported by the phenomenon of his falling asleep at the first session. He admitted that he had thought vaguely, when he fell asleep on the couch that day, that I might make a homosexual advance to him in the privacy of the office.

I was encouraged to make such a direct interpretation because of the fact that the patient could so frankly admit his homosexual wishes and his enjoyment in the recent homosexual affair, and because the whole structure of his passive feminine wishes seemed so near the surface. His intelligence also was in favor of such an attempt. This attempt at a tentative interpretation was rewarded at once. The next day the patient looked more rested and less tense, and informed me that he had slept well the night before. We went ahead with the ventilation of the other factors contributing to the projection of his feminine wishes—his dependence, his lack of a job, his very inadequate knowl-

edge about heterosexual techniques. The patient produced some relevant material about his envy of his sister's brilliance in school and his envy of his brother's being the favorite of the father. While his mother had always been nice to him, he felt that she considered her daughter her favorite, while his father preferred the younger brother. The patient was in between, relatively unloved, and hence a ready prey to an older homosexual. He could see his submission to the music teacher as an attempt to get assurance that he was loved by somebody. My sympathetic and paternal interest in him and in his difficulties, and my attempts to help him now supplied this affection in the transference relationship to me. He confided his deep feelings of inferiority, his bashfulness and self-consciousness, and himself related these to his guilt about masturbation. He began to ask a number of questions about sexual anatomy and intercourse, and the following hour I answered all his questions and explained many things that had been vague to him.

By the end of a week, he was sleeping well and I noticed that he no longer brought up his suspicions. After two or three interviews in which mention of these was absent, I asked him how he felt about these now. He said he guessed he had been off on some kind of a tangent, and he wasn't worried about them any more. I continued seeing him for fourteen interviews, spacing the appointments out to three a week after the first eight or nine, and then once a week. The last few times the patient was talking about a job he hoped to get, was making plans to rent a house for himself and his wife with some financial help from his father, whom I had advised to aid him in this way. He stopped masturbating voluntarily, and began to have more success in his marital intimacies. His wife reported that he had stopped following her around the house after the first four interviews, and he was now doing a lot of odd jobs to help out. Also, he was going downtown alone on errands, something unheard of before when he dared not leave his wife unwatched. The patient himself finally said that he didn't believe he needed to see me any more. He had obtained a job in another town and planned to move there with his wife. He thought he understood what had been bothering him. He was discharged from treatment, some four weeks after he was seen for the first time.

The improvement apparent at the last interview continued, and three months later he was busy at his new job, had no delusions, was

living in a home he provided for his wife, and was practically free from his impotence.

A little over five years after my last contact with the patient I obtained a follow-up report on him. He had been teaching school in a small town some distance from his parents and had been going to summer school each summer to complete his college work. They had a young son four years old. He had never had any return of his previous illness.

DISCUSSION

It is of interest to inquire into the possible reasons for the rapid recovery of this case. Everyone with psychiatric experience knows that such a quick recovery is the exception in cases of acute paranoid schizophrenia, and some might be inclined to doubt the diagnosis. However, there are certain definite factors which can be pointed out as giving a favorable prognosis (at least in retrospect!).

The acuteness of the illness, its short duration, was one favorable factor. If psychotherapy can be begun before the paranoid elaboration has gone very far, and before the patient has been driven from within to do real damage to his reality situation, the outlook for improvement is considerably better. Also, the presence of recent significant precipitating factors—the homosexual affair, the marriage, the failure at heterosexual functioning—with the resulting maladjusted reactions made the illness more understandable. The prognosis is always better in such cases when definite precipitating factors are present and easily identified. An acute delusional picture arising without precipitating factors being present carries a much more doubtful prognosis. In this connection, one might point out that delusional suspicions of marital infidelity are often on a basis of repressed and projected homosexual wishes, but if the homosexual tendencies have always been repressed, it is much more difficult to get the patient to realize them and relate them to his delusions. In this case the recent homosexual affair made it feasible for the psychotherapist to bring this whole conflict out into the open at an early stage, in contrast to the other cases (those with no overt homosexual experiences) in which one must approach this question very slowly and cautiously.

The objectives in the therapy might be classified as follows: (1) to give the patient insight, by interpretation, into the reason for his delusions; (2) to supply, for the time being, the paternal affection

and interest which he craved so that he would not need to suppress and project his need for love, which he regarded as feminine and homosexual; (3) to support and built up his self-regard by means of sexual instruction to improve his sexual functioning, advice and help in reaching a decision about his supporting himself and his wife in constructive work, and discussion and evaluation of his real abilities and potentialities. In the short time covered by the psychotherapeutic interviews, not much could be done to effect any real change in his character structure. However, he did gain insight into the meaning of his delusions, did improve in his heterosexual functioning, and did improve in his self-regard.

In many cases that improve so rapidly, one is inclined to attribute the success of the treatment to the transference. We are aware that often in psychoanalytic treatment, as the transference feelings toward the analyst develop, they replace the symptoms and the patient is symptomatically well. Undoubtedly the recovery of this case was in some respects a "transference cure" too. However, such cases usually relapse when contact with the psychiatrist ceases. This case was remarkable in that the patient himself proposed stopping the interviews, in that he did not relapse, and in that he has not returned for further help.

Obviously, one should not become optimistic about all acute schizophrenics on the basis of occasional successes such as this one. The author has had similar cases which became progressively worse in spite of the best psychotherapeutic aid which he could give. This was true especially if the delusions involved persecution rather than marital infidelity, and if they were accompanied by more malignant schizophrenic symptoms such as fantastic megalomaniac delusions, hallucinations, and withdrawal from interpersonal contacts.

CONCLUSIONS

The case of a young acute paranoid schizophrenic is presented as a contribution to the literature of paranoid mechanisms and of short time psychotherapy. The interpretation of the delusion formation in its relationship to definite precipitating factors and in its psychotherapeutic use is discussed, and the favorable outcome of the case is analyzed from the standpoint of its dynamics, the favorable reality factors and the permanency of the result.

SOMATIC CORRELATIONS WITH THE UNCONSCIOUS REPUDIATION OF FEMININITY IN WOMEN*

BY KARL A. MENNINGER, M.D.

When Doctor Brill, whose generous spirit gave birth to the idea of this memorable occasion, invited me to participate in the program, he suggested that I present some aspect of the problem of psychosomatic relationships. Difficult as I felt this assignment to be, it seemed to me particularly fitting in view of the major life work of the man whom we have gathered to honor.

More than anyone else in this country, more extensively perhaps than any living man, Doctor Jelliffe has studied the psychological determinants of somatic symptomatology. Over twenty years ago he reported a case of skin disease associated with emotional conflict, and since then he has consistently sought to elucidate this aspect of disease and, in the face of ridicule, skepticism and contradiction, he has given to the scientific world detailed studies of the contribution of emotional factors to asthma, bronchitis, tuberculosis, hypertension, post-encephalitic syndromes, arthritis, bone and joint disease, spinal cord infections, thyroid imbalance and eye disorders. That the energy which the human being turns to various tasks, pleasures and defenses of his life may likewise be directed to and against his own body seemed so obvious to Doctor Jelliffe, that the problem of tracing the devices of its accomplishment seemed to him to be the immediate task, and to it he applied himself with characteristic energy and fruitfulness.

Trailing many years behind him, there comes now an increasing flood of reported clinical observations to support the view he so long ago espoused. The vast accumulation of evidence in this direction is added to at every annual meeting of the American Psychiatric, the American Psychoanalytic and the American Neurological Associations.

* Given at the celebration in honor of Smith Ely Jelliffe, M.D., at the New York Academy of Medicine, April 22, 1938, and published in the *Journal of Nervous and Mental Disease*, 89:514-527, April 1939. Publication in the *Bulletin of the Menninger Clinic* is by arrangement, through the courtesy of the editors of the *Journal of Nervous and Mental Disease*.

What is to follow is but a small fragment in the rising edifice of the modern conception of psychosomatic relationships.

There are at least two conceivable ways in which to proceed with research in this field. One could select a physical symptom or syndrome in which structural and functional pathology is well known, hyperthyroidism for example, and from the psychological examination of numerous patients presenting this disease draw some conclusions about the psychological factors that contribute to it, and those which are evoked by it. This has been the more usual method. But one could also begin at the other end, as it were. He could select some recognized psychopathological constellation and ascertain the nature of the physical changes that take place in connection with it. This, too, has been done to some extent, for example by those psychiatrists who have so painstakingly investigated the blood chemistry, the cardiac function, the condition of the reflexes and other such somatic features of the depressions, for example, or of schizophrenia.

The latter method has been far less fruitful than the former and there has been a tendency to depreciate it on this account. Indeed the results obtained by this method have been used by some to prove the apparent lack of interdependence of psychological and physical factors. This, I think, is a false interpretation of conclusions based upon an inaccurate or at least incomplete use of the method. Depression and schizophrenia are not primary psychological processes but end results, and there are very good reasons, I believe (as I have outlined in considerable detail elsewhere)¹ why those who suffer from depression have less necessity for physical and chemical pathology. By the time the depression appears the somatic symptoms connected with the original psychological factors have often disappeared. (Parenthetically, by the time a patient has developed a contracted kidney, the psychological factors associated with the original hypertension and nephritis may have also disappeared from view.)

I should like to illustrate the application of this somewhat discredited but still logically justified method of procedure. And in casting about for a suitable psychopathological nidus from which to start, I thought of that well known and widely prevalent phenomenon which goes by different names and is viewed in somewhat different

¹ Menninger, Karl A.: *Man Against Himself*. New York: Harcourt Brace & Company, 1938.

lights but which in essence consists in a partial repudiation of one's appropriate biological rôle. The wish of the little girl to be a boy and to some extent the contrary wish are so widespread that we can scarcely call them pathological. Even those who cannot subscribe to the theory of bisexuality would agree that it is a part of so-called human nature to wish to have all the advantages in sight; the grass in the other field always looks greener. But in some individuals, as we know, this wish to have the advantages of the other sex is accompanied by a wish to repudiate, reject or deny one's own sex.

For present purposes let us confine ourselves to the problem as it appears in women. The repudiation of femininity just referred to may be quite conscious; it is well known that some women openly despise all women and despise their own femaleness. They dress, talk, act and behave as much like men as possible. These conscious avowals of masculinity we should not expect to be accompanied by corresponding physical changes. But when the same tendency arising on the same basis cannot be satisfactorily expressed directly because of internal or external pressure, we should expect that somatic methods might be among those utilized. We know that this is theoretically possible. The vegetative and nervous regulation of glandular and smooth muscle activity is constantly recording our moods, wishes, fears and hates. The cardiac response to emotion, the respiratory, perspirational and other similar examples of the somatic expressions of emotion, circulatory changes and endocrine changes which are, at first, only so-called functional responses, in time modify structure—and the structures so modified may be any part of the human body.

Before we look for some of the somatic correlations, if any may be found to exist, with the unconscious repudiation of femininity in women, let us review briefly the theoretical origin of this complex.

The envy of the opposite sex which is so clearly reflected in the conscious wishes of the little girl to be a boy (and the less easily acknowledged but equally important wishes of the little boy to be a girl) is derived not so much from the physical and social advantages accruing to the opposite sex as upon a feeling of frustration in the competition to obtain love from the parents. For if we define envy as the emotional consequence of comparing the gratifications one is *not* getting with the gratifications someone else *is* getting (or seems to be getting), we may safely infer that envy is the inevitable burden

of every child. For every child must endure increasing disappointment, frustration, postponement and displacement in the gratifications of his need for love.

In the case of the little girl, and particularly those little girls whose thwartings are especially great on account of behavior or attitudes of the parents, the flame of envy may reach a terrific heat. This heat must express itself largely in feeling, because the child has so slight a capacity for changing his environment, or for effective external aggression. In this respect her brother is often apparently more fortunate. Thus some of her hostility is directed toward him, as well as toward the frustrating parents.

Under ideal circumstances, the little girl is able to renounce her aspirations to be as her brother, and to repress her envy. She finds some compensations in aspects of the female rôle that she had previously underestimated. But in those little girls whose vision of these compensations is clouded or her way to the obtaining of them blocked, the envy cannot be repressed, and serves to direct her hostility in two directions: she resents the more favored and envied males, while secretly striving to emulate them, and at the same time she hates and would fain deny her own femaleness. In the latter process it is not difficult to see that she turns a portion of her hate inward upon her own femininity, a partial self-destruction aimed at the hated quality by reason of which she stands in such odious disadvantage with the envied and hated males.

The consequences of the hatred of the opposite sex (in this instance, the hatred of men) scarcely needs expansion here. It has been thoroughly treated not only in psychoanalytic and other scientific articles and books but in philosophical systems, in novels, in poetry and in history. One could begin with the Amazons² and end with a certain type of ambitious, aggressive, American woman, who attains her greatest satisfaction in attempting to destroy the masculinity of men by mastering, controlling, defeating, rivaling, or merely depreciating and ridiculing men. Such women are unfortunately too familiar not only to physicians but to every observing person.

But what are the consequences within the physical being of the individual? Or are there any consequences? Is she able to say with

² As a concept, not as an historical fact.

her body what she is unable to say with her lips, or her behavior—that she would like to be a man—and discard her badges of femininity?

If we were to take as our examples women of overt homosexual tendencies we should have plenty of evidence for our thesis. The homosexual female as we all know and as Henry and Galbraith³ observed statistically is characterized by firm muscular and adipose tissue, excess of hair on the chest, back and legs, a small uterus, a contracted pelvis, underdeveloped breasts, facial hirsutism, a low pitched voice and either undersized or overdeveloped labia and clitoris. Personally I should be quite willing to accept these data and these women as additional sources of substantiation for the theory, but I shall assume that some would be unwilling to do so for they would maintain with a great deal of historical justification that these women might be considered as having become masculine through no wish of their own, but by the will of God, as it were, or, more soberly, as the result of fortuitous germinal changes with which the unconscious psychological connections are very remote indeed. They would point to the clinical evidences that some of these changes are similar in parent and child and that some of them may be demonstrated to follow the development of tumors in certain endocrine glands.

There is no discounting this explanation but there is another interpretation of the facts. No one, certainly not the speaker, denies that the energy distributions of the human personality can be altered by chemical manipulations; but they can also be affected by psychological manipulations and if this is true then psychological factors must also have entered into their genesis. Goiter can be cured by iodine, but it can also be cured by psychotherapy. Homosexuality, also, has been cured by psychotherapy, and this is a fact regardless of whether one believes in the constitutional theory of the oak-tree-in-the-acorn, or whether one believes in psychological dominance. These are not antithetical but merely different points of view, hands on the elephant. Back of them both are the primary regnant processes of which the psychological aspects are just as valid and just as worthy of scientific consideration as the physical aspects or the chemical aspects. If we know quite definitely the chemical factors in a given condition and know very little of the psychological factors of that condition, it is

³ Henry, George W., and Galbraith, Hugh M.: Constitutional Factors in Homosexuality. *Am. J. Psychiat.*, 13: 1249-1267, May 1934.

easy to assume that none of the latter exist. To do so, however, is to commit a crime against logic unless one takes the position, as I trust no one in this audience does, that psychological factors are an illusion or a negligible concomitant of occasional syndromes, a concept which is comparable to assuming that chemical processes take place in some patients but not in others.

But rather than to labor the point in the case of women whose repudiation of femininity takes the form of overt homosexuality, let us return to women ostensibly normal in behavior, normal in conscious sexual interest, but manifesting neurotic symptoms and syndromes leading to a psychological exploration of their deeper motives and feelings, some of which prove to be in the nature of feminine repudiation. What do we find in these?

To begin with the item of body structure—here the answer is not difficult to supply. For who is not familiar with the unattractive angularity characteristic of certain spinsters—the thin, flat-chested, narrow hipped neurotic woman? There is little in the scientific literature, if we exclude the statistical typologies of Kretschmer and his followers, which would attempt to correlate this masculine body build, this absence of feminine plumpness and body beauty with this widespread masculine envy which we have been discussing. But popular literature and lay opinion are not so silent about it. Some would say promptly that such women are unmarried because they are unattractive, but it would be equally convincing to others that they are unattractive because they are unmarried. And are they unmarried because they are neurotic or neurotic because they are unmarried? It is certainly insufficient to assume that they are all neurotic because they are unattractive.

How much more satisfactory than any of these causal couplets is the hypothesis that a deep unconscious rejection of femininity is reflected simultaneously in the appearance, the celibacy, and the neuroticism of these women, that these are three aspects of an inability to adjust themselves in a rational way to their early masculine envy.

It is not difficult to conceive how such emotional trends as I have described could be reflected in certain gestures, attitudes, gaits, and pursuits which would to some extent determine the distribution of muscle development and fat deposits. But it is unnecessary to speculate: every psychiatrist has seen in his practice many examples of this

in which it was possible to ascertain that the entire life was determined by a conscious effort to imitate as much as possible all the characteristics of the masculine members of the family and to reject as much as possible all of those things which were characteristic of the females in the family. And if such definite trends can be recognized consciously, we may safely assume that far more extensive, far more powerful trends exist unconsciously in the same direction.

To be more specific in respect to body structure, I have noted masculine legs, thighs and hips in several women patients in whom it was possible to demonstrate that they had, since childhood, unconsciously or consciously imitated their father's gait or their brother's athleticism. Many patients whom I have studied psychoanalytically recalled without difficulty the mortification and resentment with which they observed the development of their breasts. Some of them long before the introduction of brassieres were accustomed to tying bands of tape tightly about them in order to keep their breasts from developing any further. Indeed for a time this was a universal fashion.⁴ In the recent play, "The Women," it will be recalled that the daughter comes to her mother in tears because her brother has ridiculed her "bumps."

Of course it proves nothing to say that some girls do not want their breasts to grow and that these same girls later show a deplorable underdevelopment of mammary tissue. But it could be explained if we assume that those instinctual energies or drives or "regnant processes" (Murray) of which our conscious wishes are only subjective aspects, are capable of influencing within limits the degree of structural development of parts of the body.

Can there be facial evidence of the wish to reject femininity in favor of masculinity? It is well known that neurotic women frequently have hard, tense faces, often possessing a querulous, bitter, pained expression. But we cannot be certain that such women are attempting thereby to look like men. However, it is significant that an actual change often takes place in the facial appearance of some of these women in the course of psychoanalysis in which these masculine

⁴ See, for example, Lilian K. P. Farrar's article on Prolapse of the Breast (*Journal of A. M. A.*, November 1, 1930) in which she concludes that "prolapse of the virginal atrophic breast is occurring with alarming frequency in this country owing to the present fashion of dress".

ambitions are renounced. This has been demonstrated to my own satisfaction in several instances on the basis of objective and not subjective evidence. I recall, in particular, one spinster of thirty-five who remained away from home the better part of two years undergoing analysis. The change in her facial appearance was so striking that it was a matter of general comment among various of my clerical assistants, upon whose judgment I have learned that I can rely heavily in such matters. Furthermore, when this woman went home, she was passed unrecognized by numerous life-long friends. In another instance a girl whose face was unattractive, not only because of her unconscious wish to repudiate feminine beauty as completely as possible but also because small-pox had assisted her materially in this direction, changed in appearance so much in the course of analysis that she was sought out by a portrait painter as a special object for posing. But, as further evidence, she began to attract male attention and within a year was married. (The small-pox residua were, I must admit, uninfluenced.)

I do not know why we psychoanalysts should feel apologetic about announcing as a scientific fact that some of our patients grow prettier as a result of treatment. Certainly the surgeons and dermatologists have no such inhibitions. But to relate this change in facial appearance to instinctual rearrangements related to what we call a wish for or a renunciation of male identification is, to be sure, still upon shaky and unconfirmed ground.

We should not minimize the extent to which external manipulations—a great interest in trying to look feminine, a more skillful use of cosmetics—influence the result. However, no one will deny that the facial muscles express emotion and if emotion, then tension and desire, and there is nothing illogical in assuming that if a woman unconsciously wants to look like a man she will to some extent accomplish this; if, on the other hand, she is willing to look like a woman she will do so.

We should logically expect that the most significant alterations in function or structure related to the repudiation of femininity would be in connection with the reproductive organs.

That frigidity and vaginismus may represent physiological rejections of the feminine rôle in intercourse is now fairly generally accepted by most of us and I should not mention them were it not for the ineradic-

able conviction of so many gynecologists that these conditions have a physical basis. While I have always doubted this, feeling that the symptoms could be explained entirely upon the assumption of psychological inhibition, a degeneralization of the genitals, as it were, I am prepared to concede that the gynecologists may be partly correct, for I cannot imagine that a long-continued frigidity or vaginismus could exist without some corresponding structural changes, or at least the atrophy of tissues and glands, characteristic of any unused part of the body.

Sterility is somewhat comparable to frigidity;⁵ it represents the failure of normal biological functioning. That it occurs far more frequently in civilized men than in savage men and far more frequently in men than among animals should have suggested before now that something in the spirit of our civilization interferes with a process generally regarded as beyond psychological control.

That the emotional life has some relation to this phenomenon would appear to be demonstrated by those numerous reported cases in which a reorganization of the psychic life results in pregnancies ten, fifteen and twenty years after marriage. I, myself, am familiar with an instance of this. Some gynecologists have gone so far as to postulate the details of the physiological mechanisms of this phenomenon. For example Sellheim⁶ assumes that the emotional factors are reflected in an over-action of the ovaries resulting in a premature maturation of the follicles such that ova are discharged which are not yet ready for fertilization. He believes that in some cases this is cured by psychotherapy, in others by a gradual reconciliation of the woman to her sterility, this reconciliation serving to decrease the pathological (emotional) stimulation of the ovary and hence allowing it to discharge normal

⁵ Whether sterile women are more likely to be frigid than non-sterile women is difficult to prove, since the actual incidence of frigidity is unknown. It is my impression, however, from clinical experience, that the association of sterility and frigidity is of frequent occurrence.

One patient, for example, illustrated almost every proposition in this paper: she was completely frigid, suffered from dysmenorrhea, was sterile, resented all of her feminine activities and obligations and had both breasts amputated one after the other, on the pretext that she might be developing a cancer in them.

⁶ Quoted by Mayer, A.: "Psychogene Störungen der weiblichen Sexualfunktion." in O. Schwarz: *Psychogenese und Psychotherapie körperlicher Symptome*. Wien: Springer, 1925. 295-344, bibliography 469-474.

ova and to terminate the sterility, as when a child is born after a couple has adopted one.⁷

Other physical manifestations of the repudiation of femininity are apparent when pregnancy ensues. *Hyperemesis gravidarum* is such a symptom, and is so recognized by many obstetricians. And to revert, in this connection, to the theme of frigidity, some women vomit after every act of coitus. I can say from personal experience that in some women the degree of discomfort, both in pregnancy and in parturition, is directly proportional to the intensity of the resentment at the femaleness thus expressed. To say that it represents normal feminine masochism is, to my notion, but playing with words. The very fact that parturition is so much more difficult and painful in civilized women than in the uncivilized is a substantiation of the theory invoked at the beginning of this paper, a theory not original with the speaker, namely, that civilization robs our normal sexuality.

In connection with the pains of pregnancy, I am reminded of a case which I saw recently in which the pregnancy was complicated by sudden, inexplicable abdominal pain of such severity that an exploratory laparotomy was performed. The operation revealed nothing, but the pains disappeared for a while, only to reappear with great violence as the date of delivery approached. It was as if the girl were obliged to inflict upon herself great punishment for the sin of being pregnant. Time precludes my relating the innumerable devices used by her to forestall this self-punishment and divert it to her sympathetic relatives. Among other things she had had five operations.

It is true that other drives than those connected with the repudiation of femininity may determine hyperemesis, for example, the wish to reject the child. But merely to be pregnant is a great trauma to the women afflicted as we have described, and many difficulties develop with it, which are, in essence, protests.

Coming at last to the uterus itself, in its non-gravid form and functions, we think first of all of those disturbances of menstruation which

⁷ Other authors who believe that sterility may be the consequence of emotional conflict are A. Mayer (*op. cit.*), and Kehrer (Kehrer, E.: Ursachen und Behandlung der Unfruchtbarkeit nach modernen Gesichtspunkten. Zugleich ein Beitrag zu den Störungen des sexuellen Lebens, besonders der Dyspareunie. Dresden und Leipzig: Steinkopff, 1922. 113 pp.).

have been traced to a direct connection with the unconscious repudiation of femininity. Of these, of course, amenorrhea is the most logical, dysmenorrhea probably the most frequent. But menorrhagia, metrorrhagia and even leucorrhea have also been identified as psychologically determined and, by removal or correction of the psychopathology, cured.

Several authorities have reported evidence that uterine prolapse, cystocele and even fibromyomata are physical consequences of a disturbed psychosexuality—by which is implied, although not always stated, a rejection of femininity. That fibroids and sterility are associated is well known, and sometimes one, sometimes the other is made responsible. That both may be coordinate sequellae of the same fundamental condition—disturbed psychosexual adjustment—is the contention of some who claim to have seen them disappear when psychological reorganization was accomplished. The writer can speak only for the so-called infantile uterus. In two cases, so diagnosed, he has seen a sufficient metamorphosis occur as the result of psychological treatment to lead to amended diagnoses, and in one of them to pregnancy. In both cases the wish to deny and discard the uterus as a badge of femaleness was strongly active.

However skeptical we may feel in regard to these extraordinary findings, we must realize that as yet there has been little cooperation in the researches of psychiatrists and gynecologists. Indeed the attitude of modern medicine is not so very different toward these patients from that described in 1884 by Clifford Allbutt⁸ who said in speaking of the visceral neuroses:

A neuralgic woman seems thus to be peculiarly unfortunate. However bitter and repeated may be her visceral neuralgias, she is either told she is hysterical or that it is all uterus. In the first place she is comparatively fortunate, for she is only slighted; in the second case she is entangled in the net of the gynecologist, who finds her uterus, like her nose, is a little on one side, or again, like that organ, is running a little, or it is as flabby as her biceps, so that the unhappy viscus is impaled upon a stem, or perched upon a prop, or is painted with carbolic acid every week in the year except during the long vacation when the gynecologist is grouse-shooting, or salmon catching, or leading

⁸ Allbutt, T. C.: *Gulstonian Lectures on Neuroses of the Viscera*, *Lancet*, 1884, 1:459, 507. Quoted by Edward Weiss in *Personality Study in the Practice of Internal Medicine*, *Annals of Int. Med.*, 8:702-706, December, 1934.

the fashion in the Upper Engadine. Her mind thus fastened to a more or less nasty mystery becomes newly apprehensive and physically introspective and the morbid chains are riveted more strongly than ever. Arraign the uterus, and you fix in the woman the arrow of hypochondria, it may be for life.

If anyone thinks that attitude has changed, let him be disillusioned. I should say that the majority of the psychoneurotic invalids by whom we are consulted have had gynecological treatment, if not gynecological surgery. If anyone thinks this is limited to our own country, let him read the announcement made with pride in an English journal:

The appointment, believed to be the first of its kind in this country of a whole-time gynecologist to a mental hospital . . . is a big step forward in the care of the mentally afflicted (!) . . . The treatment is usually as follows: First a series of glycerin irrigations of the uterus (as laid down by Remington Hobbs), then the pelvic diathermy treatment of Cumberbatch and Robinson, with vaginal bi-polar faradism, monopolar high frequency, and special levator ani and other exercises as indicated, together with colonic and vaginal lavage with sulphur waters. "Monsol" or "Iodex" pessaries are used when the discharge is very objectionable. Further general Spa treatment according to the needs of the case as directed by the physician concerned.⁹

Rather than to cavil at such treatment it would be more in keeping with our psychoanalytic principles if we attempted to analyze the reasons for the persistence of such a myth as that of the floating uterus, the theory that all nervous diseases are caused by disorders or displacement of the womb. I think we must regard this as indicating an unconscious recognition on the part of the physicians that there is something wrong with the genitals of such patients, something functionally wrong, something structurally wrong. With this goes also an unconscious recognition on the part of the patient that this is true and a wish to submit to painful treatment directed there. The willingness with which some patients submit to such treatment is suggestive evidence to the psychiatrist that they suffer from a sense of guilt connected with the genital organs. This is precisely what has been reported by those who have studied the conditions above mentioned,

⁹ See Dunbar, H. Flanders: *Emotions and Bodily Changes*. N. Y., Columbia Univ. Press, 1935-1938. Ref: 1834—
Mayer, M. D.: Psychotherapy in a Gynecologic Service. *Am. J. Obst. & Gynec.*, 21:357-364, 1931; disc. 430-431.

and it conforms to our original premise that some women wish to destroy—or to have destroyed—the femaleness within them.

As I pointed out in my introduction, rejection of the feminine rôle is dependent upon deep-lying hostility, a hostility which is directed outwardly against men and inwardly against the feminine part of themselves by reason of which they feel so inferior. In connection with both of these hostilities, however, there arises a sense of guilt and a sense of guilt focussed upon that part of the body where a repudiation of femininity has been made concrete. Thus the symptom of amenorrhea, dysmenorrhea, leucorrhea, or whatever, serves simultaneously as a rejection of the feminine rôle, an aggression against the male and a local self-punishment.

The same thing is true to some extent when the menstrual flow appears unexpectedly upon the occasion of a sexual approach from a man (the appearance of menstruation on the wedding night is widely familiar; there are many instances reported in the literature in which the menstruation appears out of season, as it were, when a sudden opportunity for intercourse occurred). In these cases it has been repeatedly demonstrated that the appearance of the menstruation serves as a defense against intercourse, a method of rejecting and disappointing the excited man and at the same time evading conscious responsibility for doing so. There is another side to this, as has been pointed out by Groddeck;¹⁰ the appearance of the menstruation is also a test for the man and may have some of its prehistoric aphrodisiac functions. Thus it serves as a defense against a coitus which is half-desired and half-feared, an aggression against the man which at the same time necessitates a suppression of the woman's own desires and in this sense punishes and deprives her. Of course it has other values, also.

Until we have actually examined microscopically the exact character of the irregular and apparently psychologically stimulated menstrual period, it is, of course, unscientific to say that this proves that menstruation can unconsciously be brought about by a woman at any time of the month to gratify unconscious purposes. All we can say for certain is that *uterine bleeding* can be brought about in this way and for these reasons, that this uterine bleeding may in such instances replace the normal menstrual period for that month, and that the subject is

¹⁰ Groddeck, George: *The Book of the It*. Nerv. and Ment. Dis. Publ. Co., N. Y., 1928.

from the character of the flow and her own sensations unable to distinguish this bleeding from normal menstruation.¹¹

Psychoanalysts are so familiar with the fact that psychogenic symptoms are over-determined that I must anticipate the questions which I know will have arisen in their minds. Does the author mean to say that such symptoms as leucorrhea, dysmenorrhea, and the like represent *only* the repudiation of femininity? Has it not been demonstrated that such symptoms may include a wish to harm a man or to humiliate him or to defile him? May not amenorrhea be the expression of a pregnancy fantasy no less than of a rejection of the capacity to be fertilized?

Of course I am familiar with these things and I concede that the precise nature of the fantasies may differ greatly in different cases. One cannot look through a telescope and a microscope simultaneously and I am trying, now, to bring into general focus a wide variety of phenomena ranging from behavior reactions through functional aberrations to actual structural changes. All of them, I think, may be visualized as representations in different spheres of a profoundly influential drive, the subjective aspect of which is a wish to repudiate, or *destroy* one's own femininity, one's femaleness, expressing at the same time self-directed aggression and self-punishment. In my book¹² I have called this organic suicide—an idea which I owe in part to Doctor Jelliffe. To the extent to which the human being is able to accept and express his biological rôle in spite of the difficulties imposed by reality, including the reality of the existing cultural pattern, to that extent he is free from the compulsion to destroy anything within himself and consequently free from the necessity of atoning for such destructiveness. That this ability to accomplish partial self-destruction may express itself in behavior goes without contradiction; that it may appear in the form of perverted symptoms has been known in some degree since the hysterical syndrome was first recognized; that the functional aberration which we call hysteria may become structuralized into various organic changes is at least a logical hypothesis, but it is not yet proved.

¹¹ Numerous authors (Forel, Kohnstamm, Schindler, Mayer, Heyer, Brandess and Stemmer) have reported experiments on clinical observations of suggestion or hypnosis modifying the date of appearance of catamenia, or inhibiting it altogether.

¹² Menninger, Karl A.: vide supra, reference (2).

Here I am not raising an issue. I confidently believe that we are all essentially unanimous in our scientific convictions on this point. Whenever scientists find themselves in polemical positions, emotionally defending one point of view against another, it is fairly certain that both of them are incorrect. There is no such either-or, right and left, north and south problem in science. This is especially true of the psychosomatic problem. The time is past when we can get into a wrangle over whether a condition is psychogenic, physiogenic or chemogenic. We all agree, surely by now, that any symptom may be psychogenic or chemogenic or physiogenic and that any disease must be considered as a combination of all three. Diseases can never be psychogenic alone nor chemogenic nor physiogenic. What I am talking about today is the extent to which we can interpret the psychological aspect of some conditions with the physics and chemistry of which we are more familiar. And I am approaching it methodologically from the psychological, that is, the least known side, merely for the purpose of exposition.

Many years ago Doctor Jelliffe wrote me a letter which I have never forgotten. I cannot find the original letter, but the substance was this: in science one must choose between being absolutely safe but entirely sterile, on the one hand, and, on the other, of having the courage to think beyond one's facts. The conclusions of the latter method may require revision—it will certainly entail some mistakes and it is bound to expose one to the ridicule and suspicion of those who would rather be safe than constructive. Nevertheless, most of the great discoveries of science have been made with the deductive rather than the inductive method.

There can be no doubt in our minds as to which way Doctor Jelliffe himself has taken. I, for one, am proud to follow his lead.

And so I have mentioned some of the ways in which a certain aspect of self-destructiveness, the repudiation of femininity, might be expected to appear in bodily function and structure, and I have referred to ways in which some have felt that it does appear. Only a vast amount of patient research will substantiate these deductions. As I have said in the book referred to I am fully aware of the unevenness of the evidence submitted and the speculative nature of some of the theory, but I cling to the belief that to have a theory, even though it proves to be a false one, is better than to attribute events to pure chance. A

theory has the virtue of leading either to confirmation or rejection, thus clearing the way for the slow progress of science. This, I assume, is our common aim. This has surely been the aim of the great man who sits at my left; this man with his great mind, his great knowledge of neurology, of psychiatry, of medicine, of *life*, and above all his great and indefatigable spirit. Doctor Jelliffe, we whom you have inspired salute you!

PSYCHIATRIC OBSERVATIONS IN A CASE OF INVOLUTIONAL MELANCHOLIA TREATED WITH METRAZOL

By MARTIN GROTJAHN, M.D.

Recently observations have been made and reported that metrazol treatment may be successfully applied in some cases of depression. According to observations made at the Menninger Sanitarium, melancholia of the involution period gives some prospect of benefit from metrazol treatment. It is even possible that the metrazol treatment of these cases will afford better results than in schizophrenic patients.

In the following pages case reports begun previously* will be continued with a case which was under our observation and treatment from September 1937 to July 1938. This patient responded very well to metrazol and the description of the case is interesting (1) from the clinical point of view, (2) in regard to the indication for metrazol treatment, and (3) as a study of the possible psychological dynamics of shock treatment.

The patient was a woman aged 54 whose mother had suffered from two depressions and whose mother's brother had committed suicide. At least one of the patient's sisters had gone through a psychotic depression.

After the patient had gone through school in an uneventful fashion she returned home to help her mother. She was engaged to her present husband for five years and married at the age of twenty-five. She had five children, the eldest twenty-nine years of age, the youngest fifteen. All were far above average intelligence and had shown no psychotic behavior.

In the years 1924 and 1927 the patient, who had always been a very well liked and sociable person, with some compulsive characteristics, showed symptoms of slight hypochondriacal depression. However, the present illness did not begin until January 1936 while the patient was visiting her mother and just following the death of the patient's father-in-law, who had been making his home with the patient and

*See Grotjahn, Martin: Psychiatric Observations of Schizophrenic Patients During Metrazol Treatment. *Bull. Menninger Clinic*, 2:142-150, September 1938.

her husband for several years. It became necessary to hospitalize the patient soon after this because of an agitated depression with paranoid symptoms and anxiety. She thought she was being persecuted by the "Reds," that they were threatening to kidnap and murder her husband and children. She left the hospital in May 1936 and following this she made two suicidal attempts and again had to be hospitalized, this time from October 1936 to September 1937.

When she was admitted to the Menninger Sanitarium September 1937 she had been in a stage of restlessness, anxiety, and negativism for eighteen months. She had lost a great deal of weight, could not sleep, and would not communicate with other persons. She spent most of the time walking the floor crying and talking to herself, saying such things as, "I can't stand this; I can't go on like this. Why do you keep torturing me? Wire my husband to come and get me! Mercy! Mercy!" One of her expressions was that she felt "like a lost ship on the ocean." "I am full of tragedy and was full of humor," she would say, and "I am full of hate and was full of love. I cannot cry; I cannot laugh; I cannot think." She asked for help constantly, always accusing everyone of being "mean" to her, and she accused herself of being "mean" and aggressive to everyone, including herself. She refused to cooperate in anything and would not take part in any social activity. She attempted to "force" her physician to help her by saying, "I will bore you to death and maybe you will help me out of self-defense." She asked desperately for a brain operation, for insulin or metrazol treatment.

It was very difficult to establish contact with the patient. She seldom said anything other than to make violent demands for help, saying "something drastic must be done." When she was asked for dreams she said that she dreamed beautiful dreams every night about going home, of being with her husband, of enjoying the beautiful landscape and taking long walks, and of being well and happy again. There was not much change in her behavior six months after her admission to the hospital; even the birth of her first grandchild did not affect her.

Finally it became possible to establish some contact with her and she began to show signs of affection for her physician, doing little things for him such as making cookies and candies by herself which she gave him. She also asked to see her husband which request she

had never made during the two years of her psychotic period. Shortly before she was to see him she slipped back into a complete negativistic behavior in which communication with her was impossible.

In this stage metrazol treatment was tried. The patient received four metrazol injections over a period of four weeks (April 1938). Each time she reacted with severe convulsions. She always opposed this treatment and during the post-convulsive stage she would cry, be confused and beg that she never again be given metrazol. It may be noted that after the first treatment she refused to believe that she had been given metrazol. She called herself a "joke patient," saying that we were trying to make a "monkey" out of her and had only given her "water." After the second injection she said she felt "kinder toward the nurses and everybody." It was of interest to note that after the third metrazol treatment she cried in the stage of disorientation, "Don't help me!" A week after the fourth metrazol treatment the patient stated, "I am much more calm; I am not so much up in the air; I think I am getting better."

She began to dress better, to go to amusements, to put flowers in her room, and even to laugh and sing. She spoke of herself in the third person, burned the clothes which she had worn during her depression, and no longer dressed in black but in colors. At this time the psychotherapist relaxed his attitude of firmness to one of kind understanding. He did not insist upon her coming to his office but visited her in her room. He made a point of scheduling her appointments for late afternoon at which time she usually felt better. The patient changed from a depressed, agitated, hostile person to a communicative, cooperative, kind woman.

She was glad when she learned it was unnecessary for her to take further metrazol treatments and said she was sure they had helped her. Some of the other patients accused her of being responsible for their being given metrazol because of the wonderful reaction she had had, and she felt guilty about this. She could sleep much better and even slept in the afternoon which she had never been able to do in her life. In describing her recovery she said, "I hated everything. I even hated the door, the rug under the table. During the metrazol treatments I put myself in your hands. It was like being reborn. The hate left me. I did not give up the depression; it just disappeared. I was only watching. The metrazol took the depression out of my hands."

It is impressive to note that the patient always spoke of her mother in the highest terms during her depression, but in the stage of improvement she spoke of her with clear hostility and even hate. The patient told a dream which she had about a metrazol injection: She was lying in bed. The doctor came. She resented the treatment violently but saw that she could do nothing about it. She felt the injection, lost consciousness and suddenly realized that she was awake. It was a horrible dream and the first unpleasant dream she had had for a long time.

In the following weeks after this dream the patient made a complete recovery. She met her husband, spent a week-end out of the hospital, returned for another week, accepted the visits of three of her children, had a very pleasant time with them, and then returned home. Since then she has accepted her former responsibilities and is, according to her own statement, confirmed by her husband's, an excellent housewife and a good wife and mother again.

This case, with its rather dramatic success following metrazol injections, is here presented as a further contribution to the literature on combined psychotherapy and metrazol treatment.

BOOK NOTICES

Appraising Physical Status: The Selection of Measurements; Appraising Physical Status: Methods and Norms. By CHARLES H. McCLOY, Ph.D. 12:126 and 15:260. Iowa City, Univ. of Iowa Studies, 1936 and 1938.

Excellent and well-considered anthropometric studies of norms for child growth, covering height, weight, fat and subcutaneous tissue, limb girth, vital capacity, endocrines, body hair, etc. for the estimation of general nutritional status. (W. LAB.)

Psychopathic States. By D. K. HENDERSON, M.D. Price \$2. Pp. 170. New York, W. W. Norton Co., 1939.

The difficult field of psychopathic states is studied by the Salmon Memorial lecturer of 1938. It is presented from a psychobiological point of view. Psychoanalytic contributions are largely ignored or tossed aside with little consideration. The section on social rehabilitation, in which he speaks not so much of psychopathic states as the social orientation of the practice of psychiatry, is considerably more enlightening than the rest. (A. M. D.)

Psychological Foundations of Personality. By LOUIS P. THORPE, Ph.D. Price, \$3.50. Pp. 602. New York, McGraw-Hill Book Co., 1938.

Doctor Thorpe treats the topic of personality in terms of a broadly functional position with emphasis on the genetic approach to behavior. His concern is with the integrated organism and its adjustments to environment. Extreme points of view are avoided. The book is written as a textbook and should prove adaptable for classroom use. (W. A. V.)

Babies Are Human Beings. By C. A. AND MARY ALDRICH. Price, \$1.75. Pp. 128. New York, The Macmillan Co., 1938.

This book, by a leading Chicago pediatrician and his wife, is almost an epitome of what most child analysts would consider the "best that is thought and said" concerning the practical application of psychoanalytic principles to the care of infants and young children. Wise parents and physicians will take account of inherent growth processes, but will also provide that security of environment and patient induction into the requirements of the social environment which an immature human being needs. The book is attractive and non-technical. Psychiatrists as well as pediatricians will wish to recommend it to many parents and teachers. (D. W. O.)

The Pituitary Gland: An Investigation of the Most Recent Advances. Proc. Assn. for Research in Nerv. and Ment. Dis. Price, \$10.00. Pp. 764. Baltimore, Williams & Wilkins Co., 1938.

This volume is a resume of recent researches of the anatomy, physiology and some clinical considerations of the pituitary gland. It consists of forty-two papers that are characterized almost entirely by presentation of factual material. Noteworthy is the little space given to discussion of therapy. The trend of these researches is a very healthy one, delving further into the investigatory phases of pituitary problems before emphasizing therapeutic aspects. The book is highly recommended as a reference. (N. R.)

100,000 Days. By DOROTHY KETCHAM. Price \$2.00. Pp. 477. Ann Arbor, Mich., Edwards Brothers, Inc., 1939.

In this book the author gives a detailed program of patient activities, with special stress on those of the social services, of the Michigan University Hospital to show that if a hospital is to function successfully the social needs as well as the medical needs of a patient must be met. Said to be the first book of its kind, it describes the efforts of the Michigan University Hospital to treat the patient as a total personality. (M. A.)

Frustration and Aggression. By DOLLARD, DOOB, MILLER, MOWRER, AND SEARS. Price \$2.00. Pp. 209. New Haven, Yale University Press, 1939.

A stimulating but oversimplified and overgeneralized presentation of the old S-R theory with some ingenious applications. Some illustrations (e.g. p. 12) do not illustrate what they are intended to, and an erroneous conception of the modern psychoanalytic concepts (e.g. pp. 22, 47) leads to inadequacy of treatment. (K. A. M.)

The Happy Family. By JOHN LEVY, M.D., AND RUTH MUNROE, Ph.D. Price, \$2.75. Pp. 319. New York, A. A. Knopf, 1938.

With thoughtful psychiatric insight of a high order this book points out what determines the choice of a partner in marriage in many instances, why the popular yearning for complete sexual simultaneity is absurd, what infidelity means, how to solve problems arising in a wife's need to work, what children mean to a marriage and what attitudes to assume toward these and many other problems. It is not only a work of serious scientific merit but it is exceedingly well written and most readable. (H. L. A.)

PUBLICATIONS BY MEMBERS OF THE STAFF

BALLATOR, NADA S. An Educational Therapy Program in a Mental Hospital, *Occupational Therapy and Rehabilitation*, 17:147-152, June, 1938.

The author discusses the educational program in use at the Menninger Sanitarium and the therapeutic aims of the program. The values of hobbies, horticulture, bibliotherapy, dramatics, music appreciation, homemaking, sports, calisthenics, continued formal education in local schools and through extension work are outlined. Occasional specific instances are given as illustrations.

ANDERSON, CARL A. Duties of the Therapist in a Program of Occupational Therapy at a Psychiatric Hospital, *Occupational Therapy and Rehabilitation*, 17:391-396, December, 1938.

Occupational therapy is defined and the duties of the therapist in a psychiatric hospital are presented in four groups: (1) To administer the physicians' prescription and orders; (2) To recommend and correlate treatment; (3) To report on the patient's progress; (4) To undertake further study. These are elaborated and procedures and aims are explained.

MENNINGER, WILLIAM C. Individualization of Psychiatric Hospital Treatment, *Wisconsin Medical Journal*, December, 1938.

A discussion of a plan attempting to meet specific psychopathic disease with specific therapeutic measures. The author finds the average psychiatric hospital procedure weak in comparison to that of the average general hospital; outlines the information necessary to the psychiatrist before prescribing treatment for the patient, and the use of order sheets enabling nurses and therapists to cooperate in carrying out the prescription. An illustrative case report is presented.

STONE, LEO: Concerning the Psychogenesis of Somatic Disease: Physiological and Neurological Correlations with the Psychological Theory. *Internat. J. Psycho-Analysis*, 19:63-76, January 1938.

In this article psychosomatic medicine is explained in terms of neural mechanisms, through the intermediary of the central vegetative nervous system. Examples of the similarity of the mechanism in both structural and functional nervous disease are cited. A number of theoretical speculations are mentioned that are thought-provoking.

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TWO DREAM ANALYSES*

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Los Angeles, California

I.

It infrequently happens in a psychoanalytic case that the interpretation of a dream is continued until a complete understanding of all its elements is obtained, or that a dream analysis succeeds in throwing light on the total personality structure of the patient. I shall give one example of each type, though neither dream is extraordinary.

I shall go directly to the point and report the dream of a woman patient:

I am buying two pounds of fish. It occurs to me that I might buy fish for Mrs. X. too, which would make eight pounds. It then occurs to me that perhaps Mrs. X.'s cook might already have done her marketing. I then would have too much fish and would appear to be extravagant.

Most of the elements of the manifest dream text came from an experience of the previous day. The patient had really bought two pounds of fish. When she arrived home she learned that her cook had already bought some other food, so that the fish was superfluous. The fear of appearing extravagant also had another root in happenings of the previous day. It was just before Christmas and the patient had spent much money for presents. She was afraid that her husband would reproach her for being extravagant. She was in general afraid that her husband was dissatisfied with her.

At this point in her associations, the patient interrupts herself: Somehow, she states, she did not tell the dream correctly. She was not sure whether in the dream she bought two pounds of fish—as she did in reality—or whether it was not four pounds. She did not know

*Dr. Fenichel was recently a guest at The Menninger Clinic and read a paper on "The Psychology of Anti-Semitism." As this paper had been promised to another publication, Dr. Fenichel kindly offered the article here published in substitution.

why she had not mentioned this doubt and the words "or four." The figure two, she says, is the more probable one, because she actually bought two pounds. (My suspicion was, however, that the contrary was correct: the figure two is determined by the day remainder; the figure four, which she did not mention first, must have a certain significance in the unconscious.)

With the idea "fish," she associates that in her childhood her family used to have fish very seldom and then only haddock. Only as a married woman did she learn that there are other kinds of edible fish than haddock. Her mother prepared the same food over and over again; she was a poor shopper, and in no respect whatever a good housewife.—Since we already knew from the analysis that the patient was very ambitious as a house-wife, we could understand that the purchase of fish in the dream represented a competition with her mother. In this way it becomes possible to formulate provisionally the first dream-thought as follows: *"I would like to do better than my mother, so that my husband will become more satisfied with me."*

At the time of the dream we already knew that all her intense feminine ambitions were centered in a pedagogic ambition. She was very proud of the way she was bringing up her two little daughters, very sensitive about minor difficulties in their behavior and eager to hear that she knew how to rear children better than all other women. She also used to compare the education of her children with her own up-bringing. I, therefore, called her attention to the possibility that the wish to do things better than her mother might also here concern the pedagogic field. Thereupon, the patient recalls another day remainder which led to Mrs. X., who appeared in the dream-text. The day before, the patient had been skating with her children and on this occasion could not help observing that Mrs. X.'s youngest daughter was a much better skater than her daughters. At first she was so hurt that she felt a deep hatred towards this child, so intense a hatred that she was horrified, and then laughed at herself.—She continues that she has bought Christmas presents for Mrs. X.'s children as well as for other friends' children. Among the presents were several dolls. She remembers how she, as a child, used to play with dolls. At that time she was distressed that her sister's dolls always seemed to her to be nicer and cleaner than her own. Sometimes she even smashed one of her sister's dolls in rage. And recently, too, it happened that she accidentally broke a doll.

Now it was clear that the patient in her pedagogic ambition behaved towards Mrs. X's children in the same way that she had behaved as a child towards her sister's dolls.

The question "Who educates children better, Mrs. X. or I?", had to be translated, on the one hand, into: "Who educates children better, my mother or I?", on the other hand, into: "Who keeps the dolls cleaner, my sister or I?"

She was very ambitious in the matter of cleanliness and was never satisfied with herself in that respect. This was the outcome of a deep anal-erotic fixation, brought about by the measures taken by her mother, who herself was obviously very anal-erotic. Behind the competition with her sister for cleanliness, was hidden the competition for her mother's love. The mother's exaggerated anal behaviour went so far that she even used to inspect the daughters' stools until they were quite big children. The wish to show clean dolls was based on the more infantile wish to produce a more impressive stool. That was not the sole factor which showed us that her ambition to educate children was based on an ambition to give birth to children. Now we are able to modify the dream-thought formulated above approximately as follows: *"I would like to surpass my mother in giving birth to children so that my husband will become more satisfied with me."* The fear of being reproached by her husband for extravagance was a repetition of her fear of making her mother angry by her uncleanness.

What is the meaning of "I might buy fish for Mrs. X. too"? To this the patient says that Mrs. X. has to buy large quantities of food every day. Yesterday, the patient compared the consumption of her family with that of Mrs. X.'s. She figured how many people had to be taken care of in each family. She and her husband have two children and a maid, that makes five people; Mrs. X. has four children and not less than three maids, that makes nine persons.

With this the patient revealed the meaning of the dream element "two or four," which at first was repressed. Two and four refer to children. She has two children, Mrs. X. has four.—The patient's mother, too, had two children, namely the patient and her sister. And so we understand: The originally repressed dream element "or four" contains the key to the most important dream thought, that is: *"I would like to have more children than my mother (for instance, four children like Mrs. X.) to demonstrate that I do better than my mother, so that my husband will become better satisfied with me."*

The patient replied to this interpretation: "Have I already told you that a child died in our house this week?"

She had not mentioned this fact before. But the doll she had broken, proved that when she learned about the death of that child, she must have thought: "This is what should happen to the children of all women who have more than two children."

Hence her fear of seeming extravagant to her husband becomes understandable as representing the opposite: She was afraid her husband would find her too miserly in bearing children. He could, for instance, compare himself with Mr. X. and find her inefficient. (This interpretation does not exclude the anal-erotic interpretation of the fear of extravagance which we indicated above. The circumstance that the wish to give birth to children is displaced precisely into the element of the number of children, is anal, too.)

Now only one detail of the dream text still remains unexplained: the number eight. (Eight pounds of fish would have had to be bought if she had had to take care of Mrs. X., too.) The patient answered this question in an unexpected way: "I figured out, you know, that the X. family are nine persons. If one of them dies, there will be eight." There is no doubt who was to die: Mrs. X.'s youngest daughter as a punishment for her good skating. That explains why the patient was so terrified at herself when she realized to what extent she hated this child. In her anger that this child was superior to her children, she probably thought of the sad event which had happened in her house a short time previously.

The main dream thought, the revelation of which advanced the whole course of the analysis, was as follows: "*I should have four children instead of two, and at X.'s there should be eight persons instead of nine.*"

Of this thought only the numbers came undistorted into the manifest dream text.

The dream was very much over-determined. It was my intention especially to demonstrate content and distortion of one latent trend of thoughts. Two other trends of dream-thoughts I will mention briefly: First, the patient's sister has no children. The patient has surpassed her in bearing children, and therefore feels very guilty towards her. She feels as if she were the murderess of her sister's unborn children—just as she actually broke her dolls. To compensate for this, she developed the phantasy that she should give herself to her

sister's husband in order to bear a child which she then would present to her sister, a phantasy which is an excellent example of "the return of the repressed out of repression". This phantasy was the basis of the dream-idea that she had to take care of Mrs. X., too.—Secondly, the fish which she bought was, as might be expected, a penis-symbol. This was also the point of departure for several latent thoughts and wishes which we did not mention.

II

A male patient dreams:

"A professor is holding a lecture outside the room. The room is filled with water; it is a lake. It is just low tide. Big fish become visible as well as two hares making love to each other."

In this case it is necessary for me to give some data about the patient before telling his associations to the dream.

The patient is a man in his forties, who came to analysis on account of certain character troubles. Although he is married, he is an active homosexual.—But this fact does not trouble him much. It is in another respect that he desires a change in his personality. He rightly feels that he lacks the capacity for full emotional expression. The structure of his personality makes an impression similar to those obessional characters who have learned to defend themselves against strong emotions of every kind. It was relatively easy to understand that, among the emotions that he unconsciously feared, guilt feelings—as a consequence of aggressive tendencies—were predominant. He felt at his best if he could prove that an injustice had been done to him. Unconsciously, he had developed certain tricks to induce others to act unjustly and unfairly towards him. This gave him a feeling of superiority corresponding to a relative decrease of his unconscious guilt feelings. He also understood how to make use of his emotional coldness as a kind of self-justification. He felt superior, if in the company of an excited person he himself remained calm and remote. He behaved in the same way during his active homosexual adventures.—And further he liked to make presents to others in an unexpected way, whereas he became stubborn and negative if anything was demanded or expected of him.

At the time of the dream, the analytical situation was as follows: After his blocking of emotions as a mechanism of defense had been

broken up, we had started to analyze his homosexuality. In his dreams dangerous women who roused feelings of fear in him began to appear. It was possible to connect this with a screen memory which long since had been known to us: As a small child he and a little girl had been photographed in the nude. The children had had a quarrel, during which the girl had scratched him, and he had cried. An uncle of his had scolded his mother for letting the children be together in the nude, but his mother had laughed and said that they were still small.—From two details we saw that this memory represented the fears which had determined his turning to homosexuality: His dreams of "dangerous women" always contained allusions to nails and scratching; the patient had later developed a kind of hand-fetishism: he classified the hands of persons of both sexes into "male" and "female" ones and preferred the male ones.—His fear of women had, besides its manual importance, a significant oral note. The women in the dream were "vampire" in character, and tried to suck him or to take something away from him.

However, it was interesting that the appearance of those fears was limited to his dreams. In his daily life the old mechanism of defense against his emotions continued. I called his attention to this difference and told him that the emotions he experienced in his dreams were real and that the analytical task would be to find some indication of the same emotions in his every day life. Thereupon he admitted that for several days he had had a slight diarrhea. I assured him that this was the sign of anxiety we had been looking for. I added that the dreams showed that this anxiety must be rooted in a certain passive attitude towards women. He replied that he thought he was perhaps afraid not only of women, but of any passive attitude generally; perhaps, he said, he emphasized an active homosexuality in order not to become aware of the passive homosexual longings.—We had some material which seemed to confirm this idea: I have already mentioned that he liked to spend money and to make presents when he could surprise people, whereas he refused to make a gift whenever he felt that he was expected to give. He liked to walk through the town, acting like Harun al Raschid: he would bestow a large sum upon a beggar and play Santa Claus to street urchins. In this behaviour the activity without doubt served the purpose of covering passivity. Originally, he would have liked to receive gifts in the same way that

he now gave them. If he now showed obstinacy when gifts were demanded of him, it was in revenge for his unsatisfied longing to get presents. So for the time being we could not decide whether women or men were primarily feared. But certainly this much could be stated: The patient had a great longing to have someone hold his hands, to be soothed and to be presented with gifts,—but this longing was blocked by an anxiety that the person to whom he gave himself might injure him, that the hands to which he clung might unexpectedly begin to scratch him.

Another fact should also be mentioned. It had become clear to us that in the transference the "interpretations" which the analyst gave him also had the significance of gifts. He was very much hurt if the analyst did not speak enough to him, but felt himself appreciated if he got "words" from his analyst.

It was in this analytical situation that the dream occurred.

When asked for associations, the patient began to talk about a matter which seemed to have no connection with the dream. He usually did not bother very much about his money. Often, he was greatly surprised how much he had spent when he got his monthly bank statement.—But this time the opposite had happened. The day before he had received the statement and had discovered that the balance was much higher than he had anticipated. This pleased him greatly.—I remarked that perhaps he felt like the children who got gifts from him—he had presented himself with a gift.—He did not respond to this interpretation, but instead began to associate to the details of the dream text: The night before the dream he had attended a concert. A concerto called "Past Happiness" was performed. As the patient did not know the language of the country very well, he at first misunderstood the title. In this language the word "past" is similar to the word "hare," and he was at first astonished about "hare-happiness." Later he recognized the mistake.

It was now clear what the "hare-happiness" of the dream meant. It simply was a "past happiness." The dream exhibited an aquarium, a spectacle, in which his past happiness was demonstrated to him.—But besides the hares that make love to each other, there are the big fish. What about them?—To this the patient made no reply. Apparently, the question was put too soon.—Instead, he talked about the professor. A few days before I had said that I analyzed only a

few neurotics; that the majority of my cases were physicians undergoing analysis for training purposes. This remark of mine made the patient very happy. He said that I seldom made remarks about myself and that he knew how to appreciate it. In other words, he took my remark as a present. Of course, the patient added, the professor represents the analyst. He is "outside the room." In a certain sense the analyst likewise is outside the room, because the patient cannot see him.—Thus we see he dreams that the analysis shows him his past happiness, and that this demonstration has the value of a gift for him.

He further recognizes the professor in the dream as a certain person in his environment. This acquaintance is a paranoid person who up till now did not need hospitalization. During the last few days the patient has thought a lot about this person, consciously because he feared that the man in his delusion of persecution might hurt him; unconsciously, because he felt tempted by the homosexuality of this paranoid man. Now we can provisionally formulate a dream thought: *The analyst, who gives him a present, might do him some harm. He does not do so but shows him his past happiness.*

The patient had been told that his lack of emotion was a defense mechanism; hence the "past happiness" refers to the time when he was still able to enjoy his feelings. His thought was probably something like this: Perhaps there is something to psychoanalysis and I will regain my emotions (as one gets a gift); but still I am afraid of that gift.

When the patient heard that, he replied: "Now I remember another part of the dream which I had forgotten":

"There was a bottle full of small fish, which one can drink."

He immediately knew the day remainder of that part of the dream: The bottle is one filled with sweets that he saw yesterday in the window of a candy shop. Following a sudden impulse he bought this bottle to present it to his wife. But his wife, unfortunately, is not permitted to eat sweets because of stomach trouble. He had taken it for granted that she would be allowed to eat these small sweets at least.—At this point I must add that his wife had been pregnant some time previously, but had had a miscarriage. It was problematic whether she should have another child because of her stomach trouble. The fact that he bought her something which she was forbidden to eat, was not only an indication of his ambivalence towards her, but also expressed his wish that she become pregnant in spite of the contra-

indications. There was also no doubt that since she was forbidden to eat sweets he would eat them. The sudden impulse to buy them must have represented a sudden desire to eat them. Thus we see that in the matter of pregnancy he identified himself with his wife.—The patient had always been suspicious of medicines. Medicines may be helpful but then again they may be poisonous. To give sweets to his wife may be a sort of substitute for the lost child (by giving her another child), but may also do her some harm. He had always been dubious as to whether medical advice is helpful or harmful. He had at one time suffered from rheumatism, about which he had consulted many physicians. The prescriptions given by them had had no effect. On a trip to the Orient a native woman had given him a medicine for his rheumatism. He was very dubious whether he should try the "magic drink" of this "gypsy" or not. He had always been interested in Oriental people and other exotics, who seemed to him wise and dangerous at the same time. He must admit that he has similar feelings towards the Jews. However, he tried the medicine and it worked promptly. The pains disappeared.—And then he again remembered how happy he was to learn there was more money in his bank account than he had expected. Incidentally, the day before he had also given money to some beggars.

We now can interpret: He fears to get "interpretations" or "health" from the analyst, because those gifts may hurt him. But he nevertheless hopes that the analysis will work in the same way as the Oriental medicine and succeed in bringing his lost happiness back to him. This dangerous bringing back of his past happiness is connected with the thoughts about pregnancy. There is no doubt that the thought of the Oriental woman represents the analyst, who is a Jew. But it is significant that the patient replaced the analyst with a woman.—In reality he had not received a gift but has given one away, namely to his wife, unconsciously to make her pregnant. When this was brought to his attention, he interpreted the little fish which were in the bottle: they represented spermatozoa. That spermatozoa were thought of as a "gift" was clear in other connections as well: his *ejaculatio retardata* was due to his unreadiness to give when it was expected.—He associated to this the love drink of Isolde, and further thought of the relation of balsam to poison, and of good drinks to bad drinks. He had a longing to receive and also an anxiety about it.

Two elements of the dream text still remain unexplained. Why is

this spectacle an aquarium and the room filled with water? And why besides the hares in the spectacle are there big fish there? The first element may be interpreted symbolically: water represents pregnancy.—As for the second the patient gives an unexpected explanation: he now recognizes those fish. They were the Salamander fish of New Zealand, pictures of which he had seen in a magazine a few days before. The article stated that explorers in New Zealand had reported that these fish have both gills and lungs, and that they are able to live on land as well as in water. The explorers had not been taken seriously—everybody had thought the story a lie. It was later proven that these fish really exist.—Similarly he had been dubious about the analysis. Now he began to feel his forgotten emotions again, which brought him joy and anxiety at the same time.

The ambivalently expected "past happiness" which the analyst was to give back to him as a "gift," had on the one hand the meaning of a passive homosexuality (spermatozoa, pregnancy), but on the other hand in place of the analyst he put an exotic woman of the magic vampire type.

As the principal dream thought we can formulate:

"Though I am afraid of what may happen if I really give myself to free associations and emotions, I hope that it will bring me sexual satisfaction and happiness, which I have known only in times long past."

The difficulty of his giving way to his emotions is due to the circumstance that he understands this formulation sexually. The active homosexual behaviour of the patient as well as his ambivalent attitude towards making gifts, served the purpose of repressing his passive attitude, which he both longed for and was afraid of. The question whether the first objects of this ambivalent passivity were men or women cannot, even after this dream, be answered clearly. The unconscious attitude towards his male analyst was doubtless a passive homosexual one. Nevertheless, the fact that in the dream a gypsy woman is substituted for the analyst seems of greater importance. The deep anxiety which was represented in the screen-memory of the nude girl who scratched him, may be expressed as follows: "If I seek security, protection and passive satisfaction from my mother, I may be terribly disappointed and hurt."

WHY PEOPLE GO TO CULTISTS

By ROBERT P. KNIGHT, M.D.*

The medical profession is sometimes accused of being smugly intolerant of healing practices or suggested methods of organizing medical care which originate from without the profession. Well grounded in scientific thinking and abreast of the latest advances in medical science, the average physician looks with disdain on therapy as practiced by cultists, brands it as unscientific, and cannot understand how the cults can continue to thrive or how they can provide any real threat to organized scientific medicine. The apathy which characterizes the average physician's attitude toward the cults was well illustrated in the recent campaign in this state (Kansas) by one of the non-medical groups to intrude into provinces of healing which the physician regards as his own by right of his scientific medical training. But however much we may view with disdain or attempt to disregard the encroachments on scientific healing made by the various healing cults and by the patent medicine vendors, most of us realize that these unscientific ways of "treatment" enjoy a tremendous following among the public, and that an enormous annual expenditure of money flows into such non-medical channels.

It should be a matter of pressing interest to the physician to try to understand how such things can be. In this paper I propose to discuss some of the factors involved. I shall inquire into two general phases of the problem: (1) the character of the power of attraction which cults have for sick people; and (2) the possible factors in the attitude of the medical profession which may turn patients away from physicians to the cultists. In conclusion, I hope to show that the ultra-scientific physician may learn some lessons from his less scientific competitors.

As a background for understanding the attraction which cults have

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for sick people, I must focus attention briefly on some elements in primitive thinking. The progress of civilization, whenever it is progress, is toward an ultimate goal of scientific thinking and of utilization in all phases of living of the discoveries of science. If I use the words "science" and "scientific" repeatedly, it is because I must to emphasize their connotations. They derive from the Latin verb *scio*, meaning "to know." They pertain to the mature thinking and discovering and testing of the educated man, in contrast to the non-rational, magical, immature thinking of primitive man, of the child, of immature people, and of many sick persons. Most of the early struggles of civilization to progress were made against this type of thinking. But although our present civilization has reached a high scientific standard, it must never be forgotten that many of its members lag far behind the front ranks of scientific thinking, nor that each member of society must make his own individual progress from childish magical thinking to whatever level of mature scientific thinking he is capable of attaining.

Magical, primitive thinking involves little of what we psychiatrists call "reality testing." It substitutes wished-for beliefs for scientifically determined beliefs. It projects internal psychological fears onto the environment and then behaves as if the imagined dangers were really existent. Primitive man knew no other kind of thinking; children only gradually become capable of more mature thinking and discard their childish misconceptions and superstitions; and even among supposedly mature men of science there still may linger, in greater or lesser degree, remnants of this former fantastic, unscientific, superstitious type of thinking. Who among us is so advanced in his thought processes that he has no private superstitions—no beliefs in good and bad omens, no unrealistic disregard of threatened dangers because he strongly wishes to believe he is safe, no pet rituals of doing things in ways that are actually unscientific but to which he clings because he has invested his rituals with some magical power to ensure the successful outcome of his activities? The first step toward understanding the primitive thought processes of those whom we treat, or those whom we should treat but who shun us and rely on cult therapy, is to realize the presence in ourselves of similar magical, unscientific attitudes.

How does this conflict between rational, scientific thinking and

primitive, magical thinking affect the situation of choice of cult or physician of a sick person who wants to get well? Every sick or ailing person becomes more childish and tends to rely more on his supposedly forsaken magical beliefs and wishes the more sick he becomes. As a child he felt that his parents were omnipotent. He sought love and security and a feeling of well being from them. Perhaps they even increased his belief in their magical omnipotence by telling him they would kiss his wound and it wouldn't hurt any more, or by providing the reassurance of their caresses and embraces which made him feel better when he was in pain, even though the pain was not actually lessened thereby. If they couldn't institute measures to relieve him they assured him that the doctor they called in would make him feel better; and they had great difficulty in getting him to understand and accept the idea that the doctor might have to hurt him or carry out some frightening procedure to make him feel better. And so, as an adult, when he becomes ill, he experiences a revival of these childish beliefs in magic or of childish fears in the face of which his adult habits of thought may be temporarily abandoned. He is ripe for the promise of cure of a special patent medicine or of a cultist who speaks reassuringly and authoritatively. Since a considerable proportion of the population remains at the level of childish thinking, to say nothing of its factual ignorance, it is not difficult to see that there will be an enormous response to magical medicines, magical procedures and magical pronouncements or reassurances of cure.

From the long range viewpoint, it was actually only yesterday that the most educated persons believed in the curative power of the King's touch for scrofula, of the sacred waters of some healing shrine, of religious conversion and faith. The day of belief in miracles is not past in the realm of healing, and supposedly educated, mature individuals find it hard not to believe in reported cases of miraculous cure of diseases and ailments that did not respond to medical therapy. It was only yesterday that even in "civilized" countries belief in witchcraft existed—belief in the power of one individual to do damage to another through thinking malignant thoughts, having malicious wishes, using magical methods to bring illness or death to a selected victim. Children indulge in such hostile fantasies; primitive men organized their whole lives on the basis of such beliefs in the power of malignant thoughts to do damage to enemies and on the basis of their

own magical methods to combat and undo the magic of the enemy. Even the Bible, whose teachings are espoused *in toto* by many people, teaches that a thought or a wish is as bad as the deed. It is but a short step from such beliefs to beliefs in the power of good thoughts. And so considerable numbers of sick people needing scientific care rely instead on the "good thoughts" of Christian Science practitioners, or on the prayers and good thoughts of their fellow religionists, shunning the scientific remedies available to them.

The more unscientific the proposal for treatment, the greater is the exploitation of this persistent belief in magic and in the omnipotence of the healer to whom the patient turns for relief. The actual mystery, to most of us, of electricity is exploited in so-called electric treatments, with imposing looking machines. The childish experience of feeling better after parental caressing and rubbing and the racial experience of belief in the "laying on of hands" is exploited by those healers who promise relief through unscientific manipulative, touching and "rubbing" measures. The primitive belief in magical potions is exploited by patent medicine vendors. In whatever sphere of living there exist fears—fears of pain, fears of blood, fears of being poisoned internally, fears of loss of sexual potency, fears of loss of vision or hearing, fears of loss of locomotive power, fears of dread cancerous growths—one finds unscientific healing practices which provide reassuring promise of cure or relief, and multitudes of people who wish to believe in these promises.

The physician realizes his limitations. He knows where the frontiers of medicine lie. He admits that certain diseases still baffle him and all his fellow-practitioners of scientific medicine. He realizes that for many human ills he has no specific curative drug or procedure and can only provide supportive measures and trust to the self-healing powers with which the patient's body is endowed. For the cultist, however, there are no frontiers, no unknown lands. He promises that his methods will cure all human ills. It is hard for even mature, educated people not to believe these assurances that they wish to believe, and not to turn away from the physician who must honestly give a doubtful prognosis to the cultist who blithely promises a cure. This is a state of affairs that can be changed only by the slow rise in the cultural level, the slow progress of generation after generation toward a greater acceptance of scientific knowledge and a more complete discarding of primitive, magical ways of thinking.

So much for the first phase of the problem, the power of attraction that magical healing methods hold for sick people who have never outgrown or who have revived, during an illness, primitive beliefs in magic and distrust of science. Let us now examine the second part of the problem, a part about which physicians *can* do something. I refer to the attitudes within the medical profession which keep the cults alive, which drive people who seek medical aid away from physicians to the cultists.

It is possible for "scientific medicine" to be partly blind and unscientific as well. As science developed and progressed it attempted to discard all of its previous measures and beliefs which were found to have no scientific rationale. Blood-letting for a long list of ailments was abandoned, and used only occasionally for such diseases for which a reasonable basis could be shown, such as certain cases of hypertension. Cathartic purging for many febrile diseases was abandoned when it was discovered that this measure had been based on magical belief in internal bodily poisons which were supposed to be flushed out of the system, and that instead certain definite pathogenic agents could be discovered for different diseases, and these agents could be combated scientifically. Similarly, many therapeutic procedures utilized by medicine in the past were discarded in the light of more knowledge and newer discoveries. Medicine became scientific with a vengeance, and almost fanatically purged itself of magical elements. Medical schools taught anatomy and physiology and pathology and bacteriology mechanistically and scientifically. The patient became a physiological machine out of order and it was up to the physician to discover the pathology and treat it. If he could discover no pathology, then the patient was certainly not sick, and was to be looked upon with disdain. He was malingering or only imagining that he was sick. Later he was called a "neurotic" and dismissed from consideration. This somewhat supercilious, intolerant, supposedly rigidly-scientific attitude of physicians became the pride of the upright medical man and the despair of innumerable patients who sought relief from their ills. What if their temperature, blood count and urine were all "essentially negative" and their bodies yielded no indication of pathology to the scientific examining methods of the ultra-scientific physician? They still *felt* sick. And in addition, they now began to feel like impostors as physician after physician disdainfully reassured them that they were all right and told them to go home and forget

about it. They consumed the placebos and sedatives condescendingly prescribed for them for a while but felt no better. Then they heard of somebody with a somewhat similar set of symptoms who had taken some treatments from a certain cultist and was thereafter vastly improved. Science couldn't seem to do anything for them and they had to have relief. It was very comforting for them to hear the reassuring promises of the cultist and they readily undertook his treatments. Strangely enough they often *did* feel better from his treatments. Perhaps they undertook to tell their physician that the new treatments were effective. If so, they usually encountered his patronizing smile and listened to his declarations that they were wasting their money. But they knew how they felt and they continued. Most of them didn't even bother to try to "enlighten" their former physician in the face of his attitude toward their complaints.

It is unrealistic and unscientific to attempt to discard and abandon a belief or a set of ideas without trying to understand why these beliefs and ideas existed. And this is just what medical science did with all of the former ideas and beliefs that it had embraced. It is also quite unscientific to blind oneself to the subjective factors in the patient and attempt to treat him merely as a machine out of order. But subjective factors, psychological factors, were regarded as outside the realm of science. They could not be assayed, measured, titrated, nor auscultated. They were just a nuisance intruding into the objective methods with which the physician was equipped to detect somatic pathology. If patients desperately tried to tell their stories, their troubles, their fears to the physician who was attempting to percuss their chests and palpate their abdomens, he terminated the interview as soon as he could without being discourteous, in order to get at other patients who were waiting and who really had a "very pretty case of apical tuberculosis" which he had triumphantly detected, or a "beautiful kidney tumor." I do not need to point out the obvious effect of such an attitude in driving patients to the cultists.

It is a step of progress which scientifically grounded physicians find it difficult to take, to accept the fact that there is also a science of subjective factors in the patient, a science of psychological processes, and to realize that disturbed emotions can cause complaints referable to organs and the actual malfunctioning of these organs. They are inclined to view with distrust the opening up of such a wide realm as

the psychology of the patient, with all of its intricate complications, its subjectivity, its apparently fantastic quality. Even the scientific researches into the functions of the autonomic nervous system and the endocrine glands were distrusted at first because they seemed to pertain to a kind of bodily activity which was subjective and bewildering. The intricate inter-relations between emotions on the one hand and autonomic activity and glandular secretions on the other seemed to be a further plunge into the unknown, away from the tenets of objective science. And when the investigation of the emotions involved attention to dreams and fantasies and "foolish" fears, and there was talk about the unconscious and the effect of childhood experiences, this seemed indeed to be getting into deep water.

But regardless of whether the physician is able to assimilate such subjective factors into his scientific concepts, there remains the reality of a large proportion of his patients made up of individuals with functional complaints, people who are *not* malingering, who are *not* imagining they are sick, but people who *are* sick, and whose sickness can be understood and treated only in terms of these despised subjective factors. Furthermore, one cannot escape the fact that a patient who has a physical illness is also psychologically sick at the same time, and needs treatment from both aspects, physical *and* psychological. A physician who administers the correct treatment for the former but neglects the latter may fail to cure the patient, while another physician who administers the identical physical or chemical treatment may succeed in curing the patient if he also understands and *meets* the psychological needs of his patient. This may involve nothing more than sympathetic listening to the heightened worries and fears that accompany the physical illness, with appropriate advice and reassurance; it may involve drawing out concurrent conscious personality disturbances and conflicts and pointing out the relationships of these to the physical symptoms; it may involve more delicate probing into the intimate life of the patient and the bringing to light for intelligent, scientific solution of hidden disturbing fears and psychological conflicts. The physician was not taught how to do this in medical school. If, in spite of his training in strict medical science, he has preserved his interest in people *as people* and has not come to regard them as a collection of pathological organs, his own intuition about the inner psychological life of human beings may be sufficient to handle many

psychological difficulties which complicate the physical illness of patients he treats, or which *are* the main illness of the patient. If his training was such that it shut out all such appreciation of his patients as individuals, each with his own psychological difficulties, then he must learn some science in the field of human psychology.

And now, in conclusion, we come to certain aspects of cultists' management of their patients, from the study of which physicians may profit. We observe that in spite of our aspirations to reach higher levels of science, cold science, mechanistic science, for want of a better term, will not suffice. There is a science of human psychology, of treating and handling human personalities. This means comprehending, understanding, and managing the magical, primitive beliefs, wishes, and fears of patients who either have never been able to discard these for mature, scientific attitudes, or who, under the stress of illness have fallen back on their supposedly discarded childish ways of thinking and feeling. The cultists are superficially correct in meeting this need for omnipotent magical assurance of cure, in their taking all of the patient's complaints seriously and sympathetically. Unfortunately, it becomes a case of the blind leading the blind, of magic applied to combat magic, without deeper understanding of the psychological factors involved, and, of course, without appreciation of the actual organic pathology present in those patients who are organically ill. Physicians must realize that some patients *do* get relief and *do* "get well" by cult treatment, simply because their psychological needs are met and satisfied by the treatment given, and must realize that these patients could have been treated successfully by physicians without the employment of unscientific measures or claims. For *all* treatment measures which meet the needs of the patient, either physiological or psychological, are *ipso facto* scientific in the broadest sense of the term. But one must know what he is doing, and must not develop a theory of illness on the basis of the success of the measures used, as, for example, basing a theory of disease and therapy on subluxation of the spinal vertebrae simply because rubbing the back of the patient makes him feel better.

Physicians are, on the whole, too sparing or else too general with their reassurances to patients. In trying to be scientifically honest they fail to meet the patient's need to be assured of help against the destructive process within him which has aroused his anxiety. They

are too contemptuous of physiotherapy—massage, passive exercise, and the like—and have let the cultists exploit this valuable field. People like to be rubbed and massaged, and they often feel much better after such measures are used, but aside from getting a massage from the nurse when bedfast in the hospital, they find it hard to get such soothing procedures prescribed by physicians. They must go to Swedish masseurs, or to osteopaths or chiropractors, or to spas where healing waters are applied internally and externally and a good rub-down is included. Physicians are, on the whole, too uninterested in or too intolerant of the story of his trouble the psychologically sick patient wants to tell. If he is afraid of going to a psychiatrist for fear that will stigmatize him, he must find the sympathetic ear of his minister, or of a Christian Science practitioner, or of a charlatan "adviser" on personal problems. All of these measures should properly be within the realm of scientific medicine. There is no surer way to eliminate unscientific exploitation of them, and thus to eliminate cults.

Cults must be taken seriously by the medical profession, not only in order to combat their encroachments on medical practice, but also, and more especially, to study and understand scientifically the psychological factors which cause people to go to cultists in preference to physicians. In order to progress further toward their scientific goal, physicians must, paradoxically enough, abandon the materialistically scientific attitude which excludes study of emotional factors involved in patients' illnesses and espouse a higher scientific attitude which tries to understand everything about the patient's behavior and feelings in addition to his structure and physiology. When that goal is reached every sufferer, regardless of the unscientific character of his thinking, behavior, and complaints, may expect to find scientific understanding and effective treatment from his physician.

IDEAS OF CHILDREN ABOUT DEATH

A PRELIMINARY REPORT

By FRITZ MOELLENHOFF, M.D.

This paper is a preliminary report of an investigation which the author conducted at the Southard School. The impulse to start this research arose following a study of the psychology of suicide. Zilboorg¹ has pointed out that there are two periods in the development of the individual which he considers critical in relation to suicide: the height of the Oedipus phase, and puberty. He contended that if, during these times, a child is deprived by death of a loved person with whom he was deeply identified, a lasting peril may be established, which in case of a new strain can lead to suicide. Zilboorg's views, which he derived from clinical observations, suggested the question, "What position does death occupy in the thinking and phantasies of children?" We were not only concerned with the child's reactions in a particular case, such as the death of his mother, but even more in his thoughts and feelings about the general fact that living things die. The problem of suicide was only the stimulus to this study and will remain in the background.

Piaget² said that a child's concept of life passes through different stages: at first everything is alive which is active, which has a function; later, life is defined as motion; which, as the child grows older he classifies into spontaneous motion and motion caused by some external agent. It should be noted that children give many other definitions of life, such as 'to be alive means to be able to speak,' 'to be warm,' 'to have blood.' So far as a child's animistic tendencies are concerned, there is no doubt in Piaget's mind that "child thought starts with an idea of a universal life as its primary assumption."

Griffith³ stated that the thoughts of children about death and dying are invariably vague and prone to change in their meaning. Implications of death, such as sorrow and irrevocability, do not seem to occur to children. To them death can mean absence today, injury tomorrow; a dead man (they think) is brought into the hospital in order to be restored to health. Griffith also mentioned in this connection the deep

need in children for security. She said the greatest fear in a child is that of death, although the child has only a very indefinite idea about it, in spite of his curiosity to discover what death really is.

One cannot help doubting whether an idea can remain vague if it is continually accompanied by the deep emotion of fear. Children have, as we know, very definite figures, symbols and phantasies, such as the "bogey man" which may remain unchanged over a long period of time and are often connected with very deep fear. Could there not also be a retention of events, such as the death of a beloved person, or of tales which adults tell children about death and dying? Freud⁴ said that children like to threaten each other with the likelihood of dying and that they are even capable of saying such things directly to a beloved person, as for example, the mother. Does this uninhibited speaking of the death of others mean that death thoughts belong to the games of children—that hide-and-go-seek, for instance, may have such a meaning to children?

After Schilder and Bromberg⁵ had investigated the problem of the adult's attitude toward death, Schilder and Wechsler⁶ raised the question of the reaction of children to death and their thoughts about it. They examined seventy-six children from the ages of five to fifteen years, patients on the pediatric ward of the Bellevue Psychiatric Hospital. Among them were a number of normal children, but there were also problem children, and feeble-minded and organically sick children. To the children of this group death seemed to have, above all, the meaning of a deprivation which could be evoked and remedied, like any other deprivation. Death, they thought, was not the natural and expected end of human life; it was an accident which happened through force or mutilation. The majority of these children lived in a world of fear and menace and it was, therefore, unavoidable that their ideas about death were linked with their sadistic tendencies. Since Schilder's material comes almost exclusively from New York, I think we are justified in considering it strongly influenced by city life with its fast tempo and ruthlessness and its special tensions in human relations which must have colored the development of these children.

But another factor influencing the results may be found in the method of procedure. To stimulate reactions Schilder showed the children pictures, the selection of which seems to me to have been rather unfor-

fortunate. The pictures portrayed hanged or stabbed persons, brutal scenes and ghosts. Such primitive presentations of death may be right for children, but on the other hand, may not their phantasies and memories be mobilized too quickly and forced too strongly in one direction, thus blocking them at the outset? Is this a way to obtain data concerning a child's general speculations on life and death?

Some insight has been derived from interviews which took the place of pictures or questionnaires. In such interviews, although the children voiced very direct and violent opinions about death and dying, they indicated that they did not regard them as irrevocable.

Susan Isaacs⁷ made the following observation: "What could be more admirable than the courage and decision of the little girl of five and a half years who, distressed by the sight of a cat playing with a live mouse, ran to get the chopper, seized the furious cat firmly by the scruff of the neck, killed the mouse with a blow of the chopper, and flung the cat down again, saying, 'There, you can have it now!'" Isaacs continues that we should "let our children face the fact of death when it comes their way, as a fact of nature." We see in the behavior of this child a rather complex concept, in that she apparently recognized that death not only means to be without motion but also to be without feeling.

This is one of the chance observations which have great value in furnishing us with spontaneous material. The incident is more revealing and hence more open to interpretation than is material gained through interview and questionnaire. I would like to add a few more such chance observations. The first one concerns a four year old child. A few days after the death of her paternal grandmother, she came into the kitchen of the family's apartment and saw on the table a dead goose whose bloody head hung down motionless from the long neck. The child, who had heard of the death of her grandmother but had not shown any special reaction, looked for a short time at the sight which seemed merely grotesque to her elders and said to her mother, "Is that what you call dead?" Her face showed some worry and anxiety, and it was a short time before she was able to resume her usual vivacity and cheerfulness.

A seven year old girl coming home from a walk was helped by her mother to take off her coat. The mother felt something round and soft in one pocket and pulled out a dead mouse. Quite casually she

asked the child, "Why have you picked up that mouse?" The child answered, "The poor thing was so lonely."

A five year old boy was going for a walk with a friend of his mother's and passed an open chapel in which a coffin was visible. The boy said quite abruptly, "I wish I was in that coffin." "Why do you wish that?" the woman asked. "It's best to be dead," answered the boy. There was apparently nothing in the conversation preceding this wish which would stimulate it. In hearing such remarks one is inclined to think that children pick them up from adults without fully realizing their emotional content and that later the words are recalled to the child by factors which may not be evident to an observer. In this case it is tempting to think of the possibility of a symbolic interpretation of the chapel and the coffin. At any rate, both may have awakened questions and anxiety in the child and perhaps aroused memories of the sorrowful face and words of an adult.

The following conversation took place between a thirteen-year-old girl and a seven-year-old boy:

Boy: When I am grown up I shall become an aviator. Then I shall fly as high as possible and when I am quite high I'll jump out of the plane.

Girl: You mean with a parachute? That must be fun.

Boy: No, without a parachute.

Girl: But then you will get killed.

Boy: I know that. That's just what I want.

The words of this boy, apart from the difference in age which it is difficult to evaluate in relation to our problem, have quite a different sound from those of the five-year-old who also wished to die. The seven-year-old boy's phantasy does not seem to have been taken from an adult and revised. His anxiety in the face of the necessity for growing up found expression in this phantasy which could mean, "Then I'll be able to do everything that is forbidden now, and for that one has to be punished or has to punish oneself."

The first example of the dead goose shows that some ideas about death must have been present in the four-year-old girl before she was told that her grandmother had died. It is not probable that the child developed her ideas in the few days preceding the sight of the dead animal, although this sight brought out the verbal expression. The idea is extremely precise but one does not know how long it might

endure. It seems to me that we are not justified in calling such ideas about death "vague." The second example (the dead mouse) demonstrates very well Piaget's belief that animism is a universal idea in children. Death is denied, at least for the time being and the child's thoughts go only as far as separation and loneliness.

I have said before that material which comes spontaneously is especially valuable. Piaget emphasized the dangers of questionnaires and used more and more what he called "a general examination" which is very similar to a psychiatric examination. Spontaneous material, fascinating as it may be, can be considered only complementary material, because we need clinical data about the history of the children, their emotional situations, and records of their reactions, which may be connected with the results of our examinations.

In interviewing children the technique of flexible questioning seems to be the best. The examiner keeps his goal in view but may approach it as slowly as he thinks advisable. A succession of logically connected questions bores younger children. Resistance from boredom or from emotional causes may complicate the situation. But without a questionnaire, the flexible examination is conducted in an improvised and casual manner, which will be determined by the age of the child, his situation and the goal of the examination. It seems to me very important to preserve the utmost naturalness in children. The examiner should be well acquainted with them. I used to join the group in the Southard School during their playtime before I started individual conferences. In these interviews it was not difficult to bring the conversation around to the subject of death. A child would tell me spontaneously that he had just gotten a present from home. I would ask, "From your parents?" He would reply, "From my mother." "Where is your father?" "He's dead." We might not continue with the subject at that time, but a point of contact had been established for future conferences. Pictures in magazines sometimes led to the subject. The animals which were kept at Southard School and among which occasional deaths occurred, afforded opportunities for discussion. Once a tiny lead angel which lay in a box helped me to direct the child's thoughts toward heaven and from there to the earthly nature of death. The course of these conferences sometimes taxed one's patience, because the child is very volatile in his ideas and it is tiring for the more logical mind of the adult to follow the flight of thought.

The following example, taken from the observations of a psychological interne who furnished material at my request, is quite revealing. She and a four-year-old girl were digging in the sand box. The little girl made a hole and said, "See, the people fall in there and get killed." Casually the student asked, "And then what?" and the child replied, "Then the policemen take them off to jail." Student: "When they are dead?" The little girl: "No, they make them come alive again." Student: "Can policemen do that?" Little girl: "Policemen tell the cars when to go, don't they?" The child then turned to new and different topics. The student's impression was that this change was not an escape but a lack of interest. She tried twice by referring to the policemen and the hole, to bring the child's attention back to the discussion, but without success. No emotional change was noticeable in the child. We see here how simple it seemed to the child to make the dead alive.

The next day the two were walking together. Dogs were barking and the little girl said, "Let's hurry or they'll kill us." The student seized this opportunity and caught the child's interest with more success than on the previous day. This time the child maintained that people stayed dead when killed. So did dogs. Here we find a distinction between being killed and dying, which children frequently make. The connection between the two, however, was evident in the example of the dead goose, in which the sight of blood and mutilation evoked the idea of death in a child of the same age.

Adults often showed a very definite negative reaction when I told them what I was investigating. It consisted in a mixture of slight indignation, momentary fright and the discomfort associated with death that we all know so well. It would be valuable to make a short detour into the attitude of adults. Freud⁴ asked, "How does our unconscious behave in relation to the problem of death?" In reply he said, "Almost exactly as does primitive man. In this respect, as in many others, primitive man lives unchanged in our unconscious. Our unconscious does not believe in our own death. It behaves as if it were immortal."

Schilder and Bromberg came to the following conclusions: "Human beings generally know that they have to die, but most of them actually do not believe it. When they think about death they generally think of it merely as a solution of their own life problems." (The seven-year-old boy who wanted to become an aviator!) "The idea of one's

own death is connected with the hope of securing things which one otherwise could not obtain or with the idea that by dying one will obtain the desired love and affection that was until then kept back from us. Or again it may be a means of punishing loved ones at whose hands we felt ourselves mistreated.* People derive pleasure from torturing themselves and may even give up their lives in order to assure spiritual union with some cherished personality with whom they have strongly identified themselves." In the same paper Freud said that for the adult also death is connected with force and mutilation or with aggressions from which suicide appears as an adequate means of escape. Zilboorg⁸ spoke of the sense of immortality acting "as if it were an independent powerful impulse belonging to the cultural forces whose existence and influence are conditioned by the individual responsiveness to incest, murder and blood guilt; a responsiveness that comes from deep and stirring experiences in an individual's own childhood."

To sum up, we may say that our unconscious denies the existence of death for ourselves. It is present in our conscious thinking but is considered improbable as often as possible; and to this concept is added the whole proud edifice of immortality.†

In spite of our knowledge about the differences between the thinking of children and adults, we feel inclined to put the question whether the similarities which we have just discovered are only phenomenological ones. Is the idea of a child that the dead are brought to a hospital and there made alive again, so very far from the belief of adults that one can call up spirits and get their advice? Is the child's lack of understanding of death which becomes manifest through his emotional indifference, so very different from the unwillingness of adults to face the possibility of their own death? True, the adult represses the denial of his own death with the help of a greater respect for reality, but the way in which both adult and child avoid the issue may be seen in the following example, a dialogue between a teacher of

* A six year old boy had received a box of blocks for Christmas and had built a complicated tower. His father, entering the room, kicked the tower intentionally so that it fell down. Crying, "I am going to kill myself," the boy dashed out of the room and could be quieted only with much effort on the part of the mother.

† Is it not characteristic that in analysis patients speak of the deaths of their relatives or friends, or of suicide ideas, but that death as a problem, as a fate of living beings, very rarely occurs in their associations?

the Southard School and a seven-year-old boy. The boy was asked to throw out some dead zinnias which were slimy and disagreeable in odor. He discarded the flowers, inhaling deeply and with apparent enjoyment. "Wow, those stink! Is that the way people smell when they are dead?" he asked. ("Generally people are buried so soon that there is no odor.") [The answer was in accord with reality. It is not direct, but it does not deny the fact that there is an odor from dead bodies.]

Boy: "But if you wouldn't bury them, would they smell like that?—Or an old pig, would he?" [The boy, although continuing to question the teacher, seemed to be stopped suddenly by some consideration and facilitated the situation which had begun to become difficult for both.] ("Yes, an old pig would smell bad but he would be buried too, so there wouldn't be any odor.") [The answer is direct but the problem is now concerned with an animal which the hygienic conscience buries quickly.] In speaking about death and its consequences, adult and child seem to be on the same level.

SUMMARY

Some techniques for investigating the death thoughts of children are described, including the questionnaire, the interview, and the observation of spontaneous reactions. The flexible, informal interview, combined with such spontaneous material as can be collected is considered the method of choice.

The fluctuating and inconsistent ideas about ^{cat} death which the child holds—his denial of and aversion to the thought of a final death as evidenced by his phantasies of killing and bringing his victim (often a loved person) back to life, and also by his indifference or apparent lack of emotion about the fact of death, his connecting death in his thoughts with killing, violence, aggressions and mutilation, and his phantasy of utilizing it as a means of escape from painful life situations or to obtain love—are comparable to those of adults; for, although adults behave according to reality in most instances and believe consciously that all living things must die, in their unconscious minds they deny their own deaths.

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- (4) FREUD, SIGMUND: *Collected Papers*. Vol. 4: Thoughts for the Times on War and Death. London, Hogarth Press, 1915.
- (5) BROMBERG, W. AND SCHILDER, P.: Death and Dying; comparative study of attitudes and mental reactions toward death and dying. *Psychoanalyt. Rev.*, 20:133-185, April 1933.
- (6) SCHILDER, P. AND WECHSLER, D.: Was weiss das Kind vom Körperinneren? *Internat. Ztschr. f. Psychoanal.*, 20:93-97, 1934.
- (7) ISAACS, SUSAN: *Intellectual Growth in Young Children*. London, George Routledge & Sons, Ltd., 1938.
- (8) FREUD, SIGMUND: *Collected Papers*. Vol. 3: Analysis of a Phobia in a Five-Year-Old Boy. London, Hogarth Press, 1909.
- (9) ZILBOORG, G.: Sense of Immortality. *Psychoanalyt. Quart.*, 7:171-199, April 1938.

SOUTHARD SCHOOL MENTAL HYGIENE INSTITUTE

The second annual Mental Hygiene Institute of the Southard School was held June 5 to 30 at the Southard School in Topeka, Kansas. The Institute which was arranged at the request of teachers, social workers and parents, both in the community and from a distance, is an introduction to the study of the application of mental hygiene to home, school and social situations. It is a part of the educational program offered by the School throughout the year and is a required unit in the training of those graduate students from various universities who are accepted by the Southard School as psychological and educational internes to spend a year in residence in theoretical study and practical experience.

The program of the Institute:

FIRST WEEK: PRINCIPLES

MONDAY, JUNE 5

9:30-10:30 a.m.	Registration	
10:30-11:30 a.m.	Welcome.....	<i>Dr. C. F. Menninger</i>
11:30-12:30 a.m.	Educational Problems as seen by a Psychiatrist....	<i>Dr. R. P. Knight</i>
7:30 p.m.	Finger Painting Party (Demonstration by Children)	

TUESDAY, JUNE 6

9:30-10:30 a.m.	The Personality; Environmental Struggle.....	<i>Dr. W. C. Menninger</i>
10:30-11:30 a.m.	Development of Personality, I.....	<i>Dr. Douglass Orr</i>

WEDNESDAY, JUNE 7

9:30-10:30 a.m.	The Child and His Siblings.....	<i>Dr. Hanford L. Auten</i>
10:30-11:30 a.m.	Development of Personality, II.....	<i>Dr. Douglass Orr</i>

THURSDAY, JUNE 8

9:30-10:30 a.m.	Barriers to Normal Personality Development.....	<i>Dr. W. C. Menninger</i>
10:30-11:30 a.m.	Examination of the Total Personality.....	<i>Dr. Earl Saxe</i>

FRIDAY, JUNE 9

9:30-10:30 a.m.	Psychological Problems of Children.....	<i>Mrs. Else Fuchs-Heilpern</i>
10:30-11:30 a.m.	Discussion of Individual Problems.....	<i>By Class</i>

SECOND WEEK: SCHOOL PROBLEMS

MONDAY, JUNE 12

9:30-10:30 a.m.	Book Review of "Mental Health Through Education" by W. Carson Ryan.....	<i>Miss Phyllis Newman</i>
10:30-11:30 a.m.	Classroom Problems.....	<i>Dr. Alan Drummond</i>
7:30 p.m.	Seminar: Mental Health Needs in Our Schools and How We Meet Them	

TUESDAY, JUNE 13

- 9:30-10:30 a.m. Theory of Transference, Part I.....*Dr. R. P. Knight*
 10:30-11:30 a.m. Case Studies of Problem Children.....*Dr. Earl Saxe*

WEDNESDAY, JUNE 14

- 9:30-10:30 a.m. Theory of Transference, Part II.....*Mrs. Else Fuchs-Heilpern*
 10:30-11:30 a.m. Motion Pictures of Activities in a Progressive School under Psychiatric Direction

THURSDAY, JUNE 15

- 9:30-10:30 a.m. Problems of Adolescence.....*Dr. Ernest Lewy*
 10:30-11:30 a.m. Juvenile Delinquency.....*Leo J. Zeff*

FRIDAY, JUNE 16

- 9:30-10:30 a.m. Methods Used by a School Psychologist.....*Dr. Herbert Shuey*
 10:30-11:30 a.m. The Psychoanalyst as Consultant in a Child Guidance Clinic
Mrs. Else Fuchs-Heilpern

THIRD WEEK: SOCIAL PROBLEMS

MONDAY, JUNE 19

- 9:30-10:30 a.m. Social Aids to Mental Hygiene.....*Dr. W. C. Menninger*
 10:30-11:30 a.m. Guidance for Older Students.....*Dean Arthur Sellen*
 7:30 p.m. Seminar: Human Relations in the Home, School and Community

TUESDAY, JUNE 20

- 9:30-10:30 a.m. The School's Mental Hygiene Obligations to the Community
Dr. H. G. Lull, of the State Teachers College, Emporia, Kansas
 10:30-11:30 a.m. Disturbances of Social Adaptation
Dr. Raymond Wheeler, Dept. of Psychology, Univ. of Kansas

WEDNESDAY, JUNE 21

- 9:30-10:30 a.m. Mental Hygiene Aspects of Progressive Education
Dr. W. Carson Ryan, of the Carnegie Foundation for the Advancement of Teaching
 10:30-11:30 a.m. The Normal and Delinquent Child
Dr. Leulab Morrison, Dept. of Education, Univ. of Kansas

THURSDAY, JUNE 22

- 9:30-10:30 a.m. Exceptional Children.....*Miss Louise Clark*
 10:30-11:30 a.m. Teaching the Retarded Child.....*Mrs. Stella Coffman*

FRIDAY, JUNE 23

- 9:30-10:30 a.m. Discussion of Cases presented by members of the Institute

FOURTH WEEK: TECHNIQUES

MONDAY, JUNE 26

- 9:30-10:30 a.m. Outline of Treatment Techniques.....*Dr. Douglass Orr*
 10:30-11:30 a.m. Case History Presentation.....*Dr. Earl Saxe*
 7:30 p.m. Seminar: Community Resources and Needs

TUESDAY, JUNE 27

- 9:30-10:30 a.m. Psychotherapy with Children.....*Dr. Douglass Orr*
 10:30-11:30 a.m. Demonstration by Southard School Art Class

WEDNESDAY, JUNE 28

- 9:30-10:30 a.m. Community Resources for Mental Hygiene.....*Miss Helen C. Mawer*
10:30-11:30 a.m. Foster and Boarding Home Placement.....*Miss Dorothy Sutton*

THURSDAY, JUNE 29

- 9:30-10:30 a.m. Mental Hygiene Value of Arts and Crafts.....*Alden Krider*
10:30-11:30 a.m. Mental Hygiene Value of Extra Curricular Activities
Dr. Norman Reider

FRIDAY, JUNE 30

Examinations for those members of the Institute who wished to obtain college credit

In this annual Mental Hygiene Institute the Southard School had the cooperation of social agencies and educational institutions of the community.

BOOK NOTICES

The Pharmacological Shock Treatment of Schizophrenia. By MANFRED SAKEL, M.D. Price \$2.75. Pp. 136. New York, Nervous and Mental Disease Publ. Co., 1938. Monograph No. 63. Translated by Joseph Wortis.

The original book was written in 1935 and was based entirely on the work in the Vienna Clinic. There is a foreword by Pötzl and introductions by Nolan Lewis and Foster Kennedy. The author himself expresses his misgivings in presenting his material because he says frankly that he pays little attention to the psychosis itself. He does correct the impression, however, that no psychological treatment should be given. He states that in the early phases it should not be used but when the patient is stabilized he thinks psychotherapy very practical. He stresses in one chapter the individualization of the treatment. (W. C. M.)

Preventing Crime. Edited by SHELDON and ELEANOR GLUECK. Price \$4.00. Pp. 509. New York, McGraw-Hill Book Co., 1936.

An able companion volume to *One Thousand Juvenile Delinquents* which describes and analyzes representative types of crime preventive work in the United States today. (A. M. D.)

Experience and Education. By JOHN DEWEY. Price \$1.25. Pp. 116. New York, The Macmillan Co., 1938.

Dewey describes the conflict between "traditional" and "progressive" education, pointing out that the latter cannot content itself with being simply a protest against the former. Rather, "progressive education" needs a positive philosophy of its own, based upon a conception of development and experience not unlike what we, in psychiatry, call the "reality principle." This small book has much to offer all educators and psychiatrists. (D. W. O.)

Guiding Human Misfits. By ALEXANDRA ADLER. Price \$1.75. Pp. 88. New York, The Macmillan Company, 1938.

This book, which has as a subtitle "A Practical Application of Individual Psychology," is written by the daughter of Alfred Adler and carries a praise-giving introduction by Merrill Moore. It may be an excellent exposition of individual psychology but in many places it is quite superficial. The chapter on the significance of dreams somewhat approaches a dream-symbol dictionary. Throughout the author tries to give Freud credit and is not controversial. (W. C. M.)

Bulletin of THE MENNINGER CLINIC

VOLUME 3

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NUMBER 6

SIGMUND FREUD

At midnight, September 23-24, 1939, Sigmund Freud died in London in his eighty-fourth year. His death came as a great relief to those who knew how the cancer which had afflicted him for sixteen years and which had necessitated operation after operation and caused him constant unalleviated pain had within recent months extended beyond the reach of surgical or radiological relief. It is an eloquent, though incidental, testimony to the heroic qualities of the man that during all this period his only medication was an occasional tablet of aspirin. Only within the last few hours of his life was any morphine administered, and despite incredible suffering, to which was added the sorrow of exile and the loss of many friends, he had continued to see his patients and to work on his manuscripts until a few weeks before his death.

The solemn magnificence of this brave and losing battle of an indomitable spirit with an inexorable physical process reflects at the same time the theme and the vitality of his life-work. His greatest concept was that of the instinctual conflict between the will to live and the wish to die, the life forces and the death forces. In his early years he passed productively and brilliantly through the phase of laboratory interests and then through that of clinical medicine (neurology), and made great and lasting discoveries in each of these fields. But he was not satisfied with these; he became interested in the more fundamental factors that served to determine not only disease but health, not only symptoms but behavior, not only pain, but sorrow. And for the next three decades of his life he studied the phenomena of what he later called the life instinct, which shows itself most directly in the impulse to love and to reproduce. For this he was reproached and ridiculed by those many for whom the conventional attitudes of hypocrisy, prudery, and salaciousness impelled the relegation of sexuality to the role of a dirty and inconsequential incident of unfortunate biological necessity. When as the result of indefatigable patience and unflinching courage he had gained for his views the recognition and acceptance of scientific leaders, he turned

to the consideration of the malignant force which battles against this life instinct. Man, he said, is his own worst enemy; warring constantly against the instinct to live and to let live, to love and to create, is an instinct which has as its object the return to inorganic insensibility; it is this instinct in the direction of death from which arise our hates, our bitterness, our suffering, our sicknesses, and our demise. This concept of hate aroused the same resistances and refutations as had his earlier concept of love, despite such frightful confirmations of it as the activities of the Third Reich.

It is a presumptuous thing to comment on the life of a genius upon the occasion of his death. Freud is not a man about whom one can write a few casual words, a few comments of praise, a few notes of criticism and feel that an appropriate gesture has been made to his passing. For Freud was not an ordinary man; he was not an ordinary scientist. He was so nearly unique an individual that it is difficult to find anyone with whom to compare him. No one in the field of psychology ever attained to a fraction of his stature. Among medical scientists almost none can be said to have approached him in brilliancy, originality, or influence upon medical practice. Perhaps no other one individual in the field of science lived to see the thinking of the entire world so profoundly modified by his discoveries within his lifetime as did Freud. Galileo, Dalton, Lavoisier, Darwin, these and others contributed discoveries which greatly modified our thinking and our ways of living, but the effect was more gradual in its permeation. For not only medical science and psychological science and sociological science, but literature, art, anthropology, pedagogy, and even popular speech show the influence of Freud's discoveries and show them in unmistakable terms.

All that Freud did stems from one simple discovery, a discovery based on knowledge which ^{yes} many had possessed before him. This was the knowledge that beneath the surface manifestations of human life there are deeper motives and feelings and purposes which the individual conceals not only from others but even from himself. Freud discovered a method for ascertaining and eliciting this hidden material; he called this method psychoanalysis. By means of it he and many others working with him gradually accumulated a considerable body of systematic knowledge about the unconscious processes of the human personality; this body of knowledge is also called psychoanalysis. It is psychoanalysis in the former sense which trained physicians use for the relief of suffering and maladaptation in their patients, and for further research in the study of personality. It is psychoanalysis in the latter sense which has come to modify the trends of literature, science and philosophy.

It was from the fruit of his methodological discovery that Freud learned to understand technically, and hence usefully, the concept of ambivalence—although as a matter of fact this particular word was

not coined by him. He became able to understand and to help others to understand that just as back of life there is always death, so back of professed love there is always some hate and back of professed hate always some love. More clearly than anyone else he saw how stultifyingly the human mind defends itself against the acceptance of unpleasant truth. This helped him to be tolerant in the face of the ridicule, the misrepresentation, the distortion, the bitter and unscientific refutation of his theories which they initially aroused throughout the world. He reminded himself and his students that all scientific discoveries which diminish the feeling of self-importance in mankind stimulate resentment and incredulity. And so, were he alive, he would not be dismayed by the astounding ambivalence revealed in some of the contemporary comments upon his life. It would neither surprise nor disturb him that a great newspaper (the *New York Times*) should have published—on September 25, 1939—an editorial ostensibly commemorating his death but actually vilifying him, misrepresenting him, speaking of "his colossal self-satisfaction and his natural intellectual arrogance," declaring with pompous inaccuracy "that psychiatrists still dismiss him as unscientific," flagrantly misrepresenting the facts about his last published book, and ending with the awkward and dubious compliment that he "was the most effective disturber of complacency in our time."

It is true that Freud was never happy in his feeling toward America, and even his best friends, many of whom were Americans, were never able to fully understand it or to alter it. He felt that we were characterized by an "unthinking optimism and a shallow activity." He was always suspicious of the popularity his theories and techniques acquired in this country. It is an ironic paradox that America should today be the country in which his theories are best known and most widely accepted. This is true not only of the general public but of medical scientists.

Sigmund Freud finally succumbed to death after many years spent in deflecting it from others. He was subject to prejudices and complexes although he spent his life in eliminating them from others. But these things do not detract from his greatness; indeed, it can be fairly said that he gave evidence of fewer prejudices and fewer complexes than most men, just as he retained his grasp on life longer than most men. What cannot be conveyed in words is Freud's ineffable modesty and gentleness and essential sweetness of character, for he had the qualities of the true scientist, and he never for one moment forgot that he was only a passing observer. To the eternal blessing of the human race, his sharp eyes and his great mind made his observations uniquely effulgent.

K. A. M.

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October 7, 1939.

INTERMITTENT EXTRASYSTOLE DIRECTLY ASSOCIATED WITH EMOTIONAL CONFLICT: A CASE REPORT

BY LEWIS GUNTHER, M.D.

Cedars of Lebanon Hospital, Los Angeles, California

AND

KARL A. MENNINGER, M.D.

An electrocardiographic recording of an arrhythmia and extrasystole directly connected with emotional stimuli and susceptible to proof by experimental reproduction was felt to be worthy of a report.

The patient, an attractive, well dressed woman of 31, presented herself at the office of one of the authors (L.G.) complaining of "heart trouble."

Until four years prior to this interview she had regarded herself as entirely well. At that time she had married.

It was shortly after her marriage that she experienced the first of what she called her "attacks." Shortly after retiring and while lying quietly in bed she would become aware of flatulence and then of palpitation. She would describe her heart as beating strongly and rapidly. After about ten minutes this would cease and she would fall asleep.

Six months after marriage she became pregnant. She was well during the pregnancy except that these "attacks" continued and she became increasingly worried over what she regarded as a "heart condition." No difficulty with her heart was discovered at the time of delivery.

About a year after the birth of her child she first noticed what she herself describes as "skipped beats." At first these occurred only upon retiring in connection with the attacks above mentioned, but later she would awaken in the middle of the night and notice the same thing. Still later she was able to detect a changed rhythm during the day although not all the time.

She worried more and more about her heart and feared that she might die suddenly. She consulted several physicians all of whom told her they could find nothing wrong with her heart. This did not allay

her anxiety, however, because both the attacks and irregularity continued.

FIRST EXAMINATION

The patient gave the above story together with some family and earlier history, which was not considered relevant, in a clear, coherent manner with appropriate emotion. She seemed restless, worried, nervous, but in no way emotional or "hysterical." Physically, she can be described as looking her age, with fair complexion, warm, moist skin, slightly enlarged tonsils, normal breath sounds, and with no striking structural pathology of the body. The peripheral vessels were soft. The systolic blood pressure ranged from 120 to 130 and the diastolic was found regularly around 80.

The apex impulse was felt inside the mid-clavicular line in the 5th interspace. Thrills were absent. The left border of dullness was inside the mid-clavicular line and corresponded to the location of the apex impulse. The supra-cardiac area of superficial dullness was not enlarged. The base was not broadened. The rhythm was regular. The first sound at the apex was loud and the second sound was soft and muscular but preceded by a valvular click. A soft blowing systolic murmur was heard confined to the apex and was accentuated by respiration. The murmur and the quality of the apical heart sounds did not change with changes in position. The second aortic and second pulmonic sounds were equal and neither was accentuated.

PELVIC EXAMINATION

The patient was prepared for a pelvic examination as a matter of routine. Certain complications developed, however, which are essential to the report of the case. A female assistant had already placed the patient on the table and arranged the sheet for the pelvic examination. As the examiner entered the room and walked toward the table to perform the examination the patient cried out, "Doctor, I am having a heart attack!" Instead of making the pelvic examination the examiner immediately palpated the pulse and listened to the heart sounds. Regular recurring extrasystoles were clearly present. It was decided to record these on the electrocardiogram immediately and the instrument was connected in the regular way to the patient. Feeling that the patient would be more comfortable if allowed to lie

flat instead of with her legs propped up for a pelvic examination the examiner instructed his assistant to adjust the table so that the patient

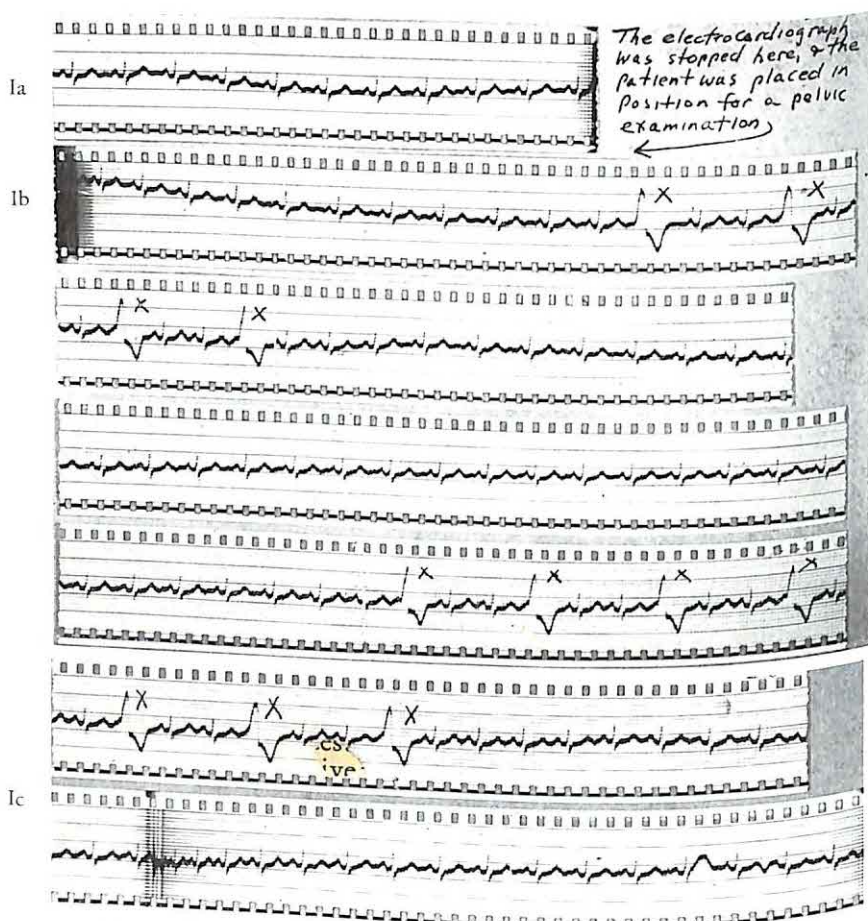


FIG. 1. CONTINUOUS STRIP OF LEAD II OF THE ELECTROCARDIOGRAM

- Ia. The patient was in normal position of recumbency.
- Ib. The patient was placed in position for the pelvic examination.
- Ic. The patient was placed in normal position of recumbency.

might do so. Immediately however to the examiner's surprise the extrasystoles disappeared. (Fig. 1a shows the tracing obtained at this time.) The electrocardiogram was temporarily turned off and

the patient was again placed in the position for pelvic examination. The examiner pretended to put on a rubber glove while his assistant was recording the remaining leads. Extrasystoles immediately re-occurred (as shown in the Fig. 1b). Once more the patient was placed in a completely recumbent position and again the extrasystoles ceased (as shown in the third portion of the tracing (Fig. 1c)). The re-

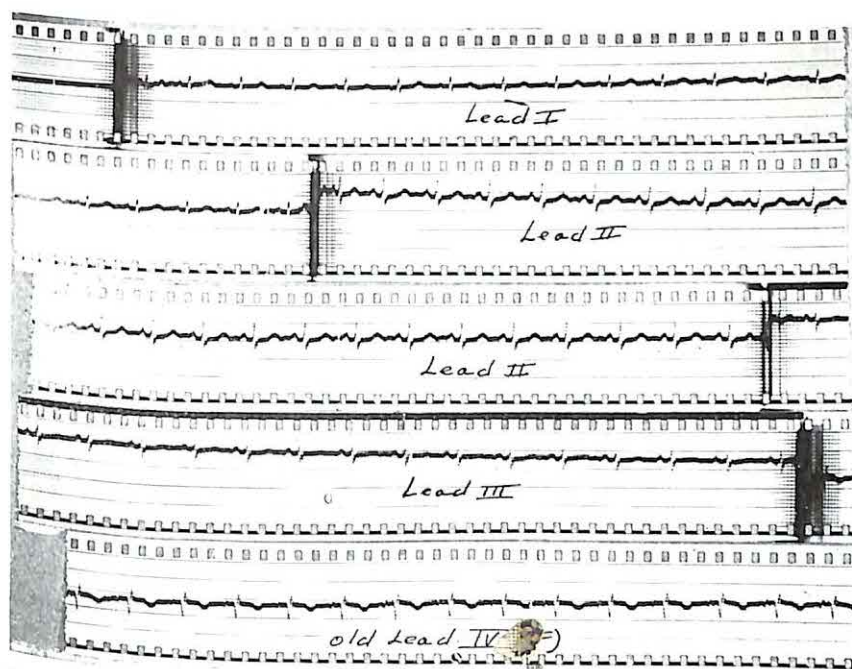


FIG. 2. CONTINUOUS STRIP OF STANDARD FOUR LEADS OF THE ELECTROCARDIOGRAM
Patient was in position of normal recumbency

mainder of the regular four leads of the electrocardiogram were taken in the latter position and no extra beats were recorded (Fig. 2).

The examiner repeated the experiment several times without the electrocardiographic tracings and each time the extrasystoles appeared when the patient was placed in the position for vaginal examination and disappeared when she was allowed to resume a relaxed, supine position. The history had already given a clue that the heart attacks were associated with the patient's sexual life. The examiner had purposely deferred any discussion of this matter until the examination

was completed. The new developments, however, were such as to make it imperative to make inquiries into the history. Her childhood background was obtained. She came from a very strict family. Masturbation commenced at an early age and was practiced regularly. She had never quite overcome her feeling of "guarding her virginity with her life" as she had been taught by her mother. The patient then stated that the question of sexual relations had been a serious problem almost from the beginning of her marriage. Her husband practiced coitus interruptus from which she derived no pleasure. Intercourse soon became very distasteful to her, so that within a few months after marriage she had a pronounced antipathy to it. At the same time she had some phantasies of sexual satisfaction from other men.

Nine months after the first examination the patient was asked to return to the office for a re-examination. She reiterated the story that she had no desire for sex relations since the birth of the baby. Intercourse was resented and she performed the act as a duty. She explained again that she had been taught not to talk about such things and therefore could not discuss the situation with her husband.

Since the previous office visit, an abscessed tooth had been extracted. Her heart had "hardly skipped at all since," but she had been unable to gain any strength.

The results of the re-examination are shown in the second series of electrocardiographic tracings.*

The electrocardiogram taken in normal recumbency with the legs together is shown in Fig. 3. With the electrocardiograph in operation, the patient was placed in the position for pelvic examination. Fig. 4 shows the rapidly recurring extrasystoles. The patient was then replaced in normal recumbency and the extrasystoles promptly ceased, as shown in the last six beats of the very irregular portion of Fig. 4 and in Fig. 5, when the "sexual position" was relinquished.

The examiner then attempted to reproduce the extra beat phenomenon by manual stimulation of the rectum and vagina. Another electrocardiographic tracing was made, the first portion of which (Fig. 6I) shows the extra beat obtained during the rectal examination

* It should be added that careful examination of the urine, blood, basal metabolic rate, teeth and roentgenological examination of the skull and chest were made, all of which were negative.

with the patient on her back in the position for pelvic examination. The second portion of the tracing (6*d*) was made during rectal examination with the patient on her left side. Tracing 6*b* was made during

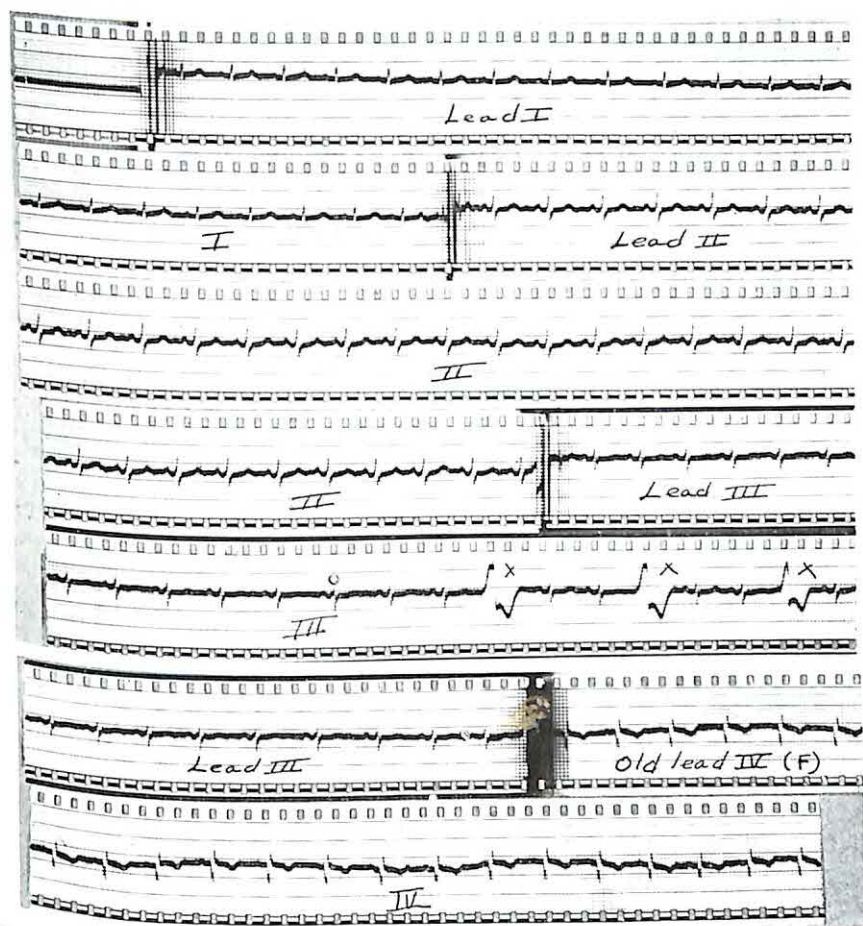


FIG. 3. STANDARD LEADS OF THE ELECTROCARDIOGRAM

A continuous strip, taken 9 months after the picture in Fig. 2. The patient in normal recumbency.

vaginal stimulation with the patient on the left side. Tracing 6*c* shows the tracing obtained with the patient on her left side with no perineal stimulation. The long strip of tracing 6*d* which shows no extra

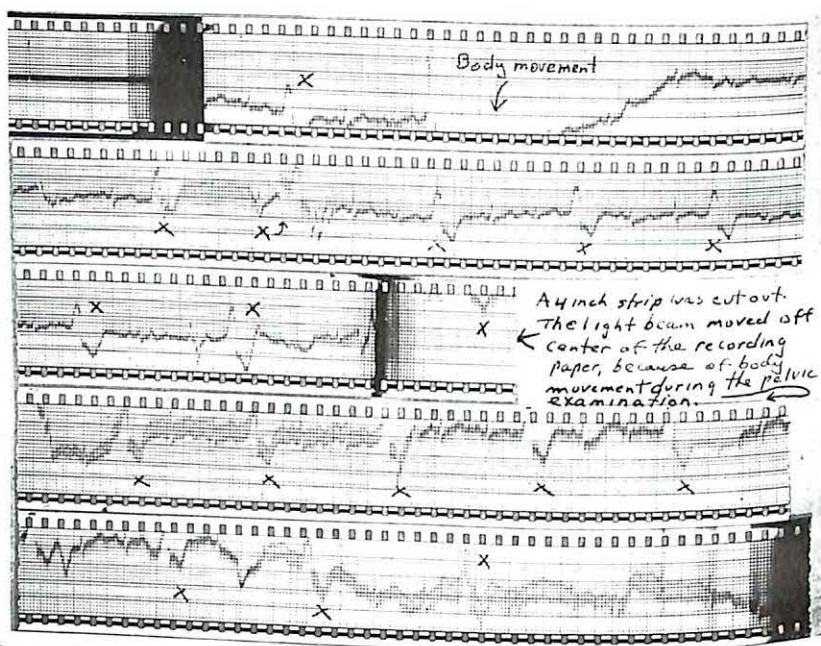


FIG. 4. CONTINUOUS STRIP OF LEAD II OF THE ELECTROCARDIOGRAM. THE PATIENT WAS IN POSITION FOR PELVIC EXAMINATION

The very irregular portion where the base line varies in the first part of the tracing is due to body movement at the time the patient was assuming the examining position.

In the second part of the tracing the base line left the recording paper during the beginning of the pelvic examination. The remainder of the tracing was made during the period of vaginal stimulation and the subsequent resumption of the normal position of recumbency with the legs together.

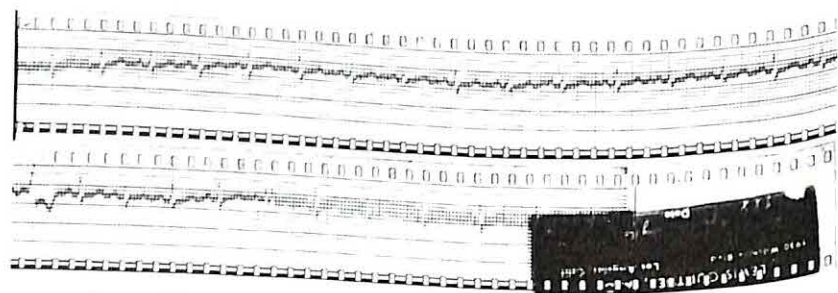


FIG. 5. CONTINUOUS STRIP OF LEAD II OF THE ELECTROCARDIOGRAM
The patient was in the normal position of recumbency

systoles was made with the patient in normal recumbency with the legs together. On the 85th beat one extrasystole occurred in 163 beats.

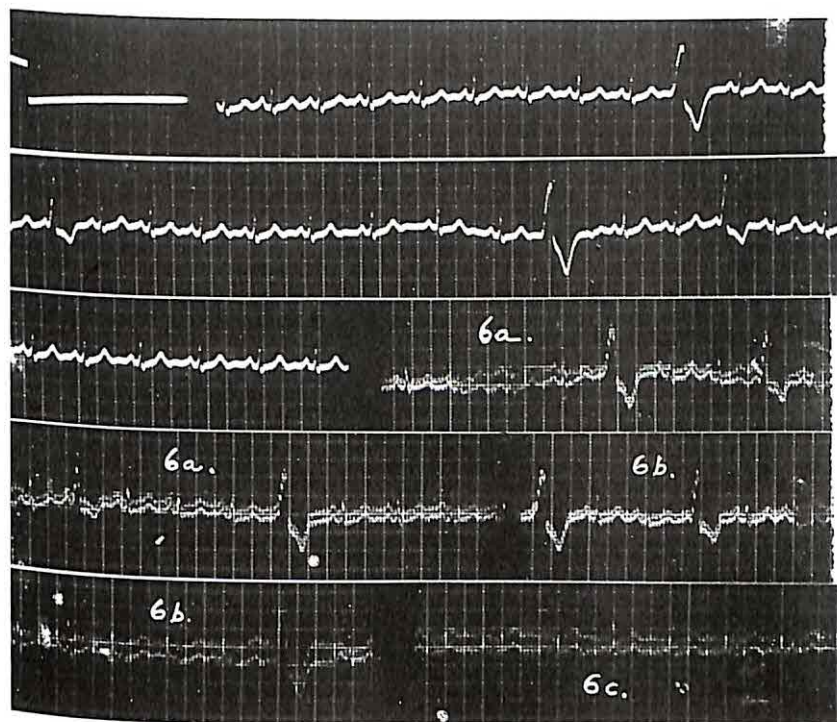


FIG. 6I. CONTINUOUS STRIP OF LEAD II OF THE ELECTROCARDIOGRAM

The first portion represents rectal examination, with the patient on her back.

6a. Rectal examination, left recumbency.

6b. Vaginal stimulation, left recumbency.

6c. No stimulation, left recumbency, prompt cessation of extrasystoles.

6d. No stimulation. Patient in normal recumbency. Two isolated extrasystoles occurred. One in the first 163 beats (85th beat).

A year later the patient was again asked to come for re-examination and gave the following history. She had practically no symptoms now. She was trying to get more out of her sexual relations with her husband, that is, making greater effort to obtain physical pleasure. She had not, however, had an orgasm. Another electrocardiographic

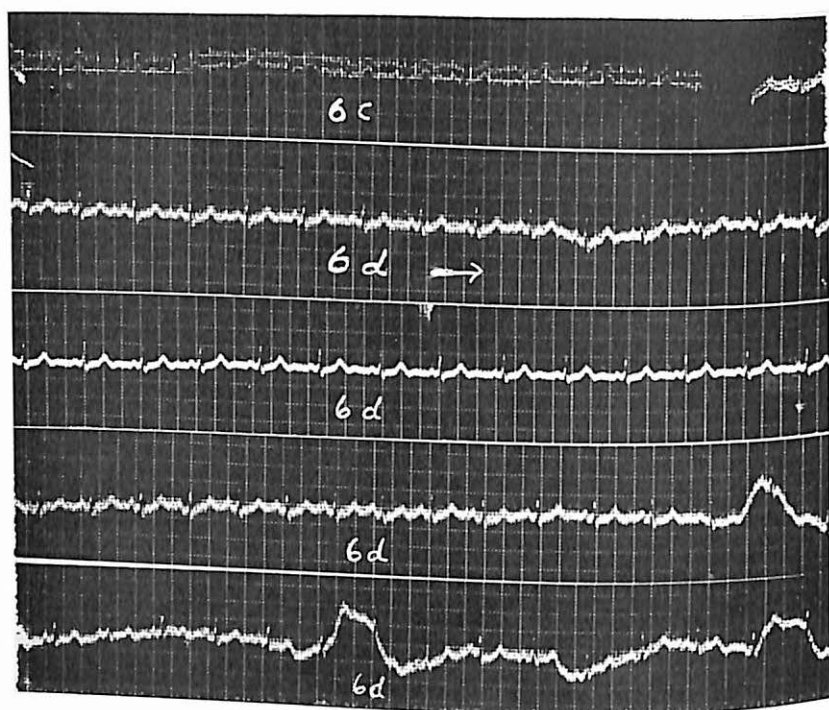


FIG. 6II

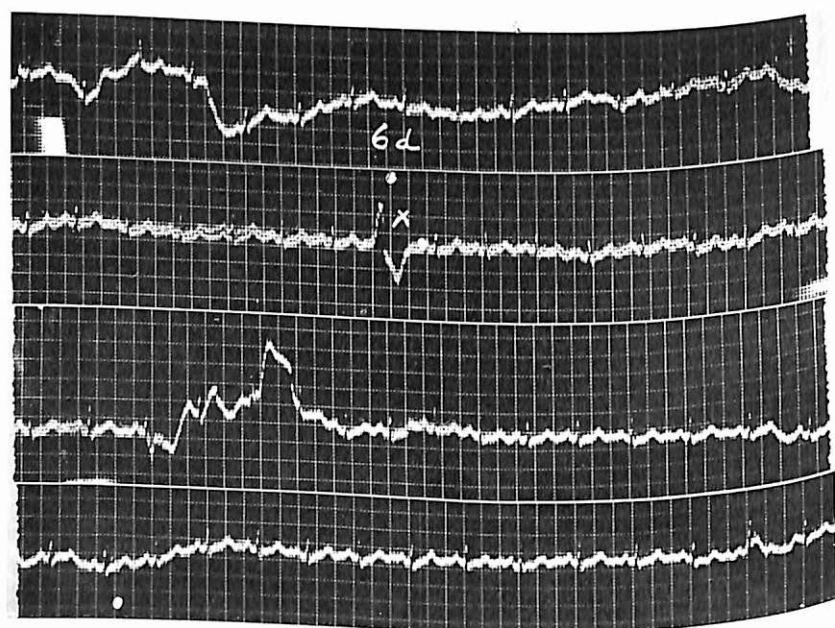


FIG. 6III
(For legend. see fig. 6I)

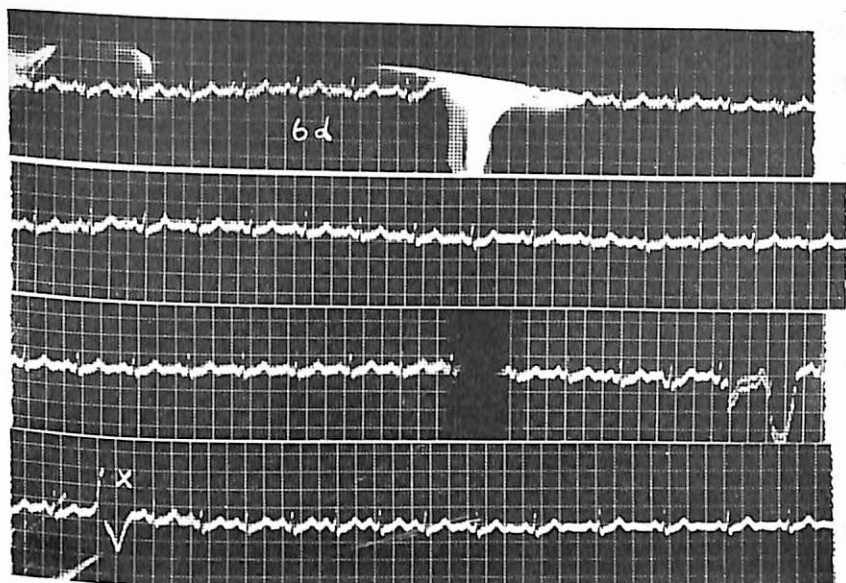


FIG. 6IV
(For legend, see fig. 6I)

tracing of a continuous strip of 40 feet in various positions and repetition of the previously successful maneuvers showed a complete disappearance of all the extrasystoles.

DISCUSSION

Extrasystoles may be caused by many agents which act as an abnormal stimulus to the heart muscle. Prominent among these are: bacterial toxins, chemical poisons, internal diseases, tobacco, tea, coffee, alcohol and certain drugs in susceptible persons; stimulation of the cardiac nerves, the para-sympathetic in the neck (vagal),¹ or of the para-sympathetic and sympathetic centers in the interbrain by cerebral lesions or experimentally by stimulation of these centers in the hypothalamus.²

Although extrasystoles are common in heart diseases, it does not follow that people who have ventricular extrasystoles have heart disease. Physiological activities such as over-exertion, excitement, forced respiration and holding the breath may induce such beats. McKenzie³ has pointed out that the diagnosis of heart disease rests less on the presence or absence of extrasystoles than on other evi-

dences. The extrasystoles are of clinical importance only as related to the proof of the presence of myocardial damage, the activity of chemical, toxic or physiological stimuli and as related to the symptomatic discomfort, either mental or physical which is produced.

In spite of the generally accepted view, however, numerous authors have pointed out that extrasystoles may be of "nervous" origin. Wenckebach and Winterberg⁴ found no pathological changes in 55 per cent of 278 patients with extrasystoles. Fleisch⁵ noted that two-thirds of a large number of candidates for examination showed extrasystoles during the examination. Changes in the electrocardiogram under emotional influence are reported according to Dunbar⁶ by a number of authors.⁷⁻¹² Of course, paroxysmal tachycardia (the palpitation from which this patient presumably suffered prior to the development of the extrasystoles) has long been recognized to be largely psychogenic in origin. One can scarcely imagine a more mono-symptomatic organic repetition of anxiety.

In addition to this there have been numerous articles by psychiatrists and cardiologists discussing the psychological factors in cardiac disease. Nevertheless, the literature remains remarkably barren of specific statements as to the meaning of the cardiac symptoms.* In this case it would seem to be diagrammatically clear that sexual intercourse or any approach to her genitalia produced in this woman a state of anxiety which instead of being registered consciously was acted out, as it were, by the autonomic nervous system in the form of cardiac irregularity. It is not unreasonable to assume that many cases of clinical cardiac disturbance are the result of clinical anxiety. How often this anxiety is related to fear connected with sexual relationships is of course entirely conjectural.

Why this particular patient should have reacted with anxiety to genital and rectal stimulation and to direct sexual activity is by no means clear. The case was not studied psychiatrically. If one may judge from similar cases, it would be fair to postulate that by this woman sexual pleasure was held to be something exceedingly dangerous, not consciously, of course, but unconsciously—an interpretation or conditioning experience of childhood the logic of which was

* One of the authors (K. A. M.) with his brother (W. C. M.) attempted to do this in a brief article, "Psychoanalytic Observations in Cardiac Disorders," *Am. Heart J.*, 11:10-21, January 1936.

no longer acceptable to her conscious intelligence but which still determined her autonomic responses. Such a condition is by no means unfamiliar in the experience of both internists and psychiatrists, although it is unusual that the symptoms of acute anxiety should be so definitely limited to the disturbed function of a single organ. What is most unique in this case is the occurrence of which might be called experimental repetition of the disturbed organic response to anxiety. It is almost as if the case permitted laboratory proof of the connection between sexual stimulation and the pathological cardiac symptoms of anxiety. And it should be emphasized that these anxiety symptoms were more than the acceleration of the heart rate which, within limits, is regarded as physiological.

In the interest of clarity with respect to the application of the instinctual theory to organic illness in which the emotional content is discernible, it should be pointed out that an anxiety which goes beyond physiological manifestations is an anxiety which is already to that degree self-destructive in its effect. This means that the anxiety is determined by more than those impulses which arise as a defense mechanism. It should not be forgotten that the pathological element in anxiety derives from the hostility which stimulates it and a part of this hostility is absorbed by or directed into defense measures. In other words, according to the oldest and now generally abandoned psychoanalytic theory of anxiety, the sexual feelings which genital manipulation should have aroused in this woman were "converted" into the anxiety which is expressed by the heart symptoms. One trouble with this theory is that it would not explain why these heart symptoms should have been pathological ones instead of only physiological ones. A later, and what the present authors believe to be a transitional, theory was to the effect that the anxiety aroused fear, and the fear overwhelmed the normal cardiac mechanisms. In terms of what seems (to the authors) to be the present-day stage of the theory, the anxiety connected with the sexual stimulation contained an element of hostility; the whole sexual act was probably heavily invested with unconscious hostile elements. Consequently, the stimulation of the sexual organs resulted in a coincidental stimulation of hostility which in turn gave rise to and was merged in the feelings of anxiety, and both the fear and the hate were then expressed automatically. If this theory seems more cumbersome, it can only be

said that it more accurately and definitely accounts for all of the phenomena observed.

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THE PSYCHIC PRESENCE

BY EDOARDO WEISS, M.D.

The term "psychic presence" relates to a psychological phenomenon which is very familiar to us. I shall not offer any original data, but I think it would be of both practical and theoretical interest to discuss the conflicts between the super-ego and the ego and id from a new point of view. An understanding of the phenomenon which I have called the psychic presence will provide this new point of view.

Among the chief tenets of psychoanalysis is the dynamic conception of psychic events, on which Freud lays such great stress. And, among the dynamic phenomena, the conflict between the id and the super-ego such that the ego is affected by contrary impulses of the id and the super-ego is certainly of the greatest practical importance. I shall not enumerate the great number of studies made by many psychoanalysts upon various types of conflict between these two psychic forces upon all sorts of issues of these conflicts and upon the importance of the sense of guilt which is responsible for neurotic suffering.

In psychoanalytic practice we do not talk to the patient about the "id" and the "super-ego". He can derive no benefit from such theoretical explanations. We lead him, step by step, to grasp memories of conscious conflicts, memories of his being afraid of those authoritative persons who shaped his super-ego. We make the patient aware of the relations between present psychic situations and old situations in which the ego was drawn into a conflict. The patient must be able to feel the conflict intimately; he must be able to connect it, by feeling, with the old situations. Freud said that the patient's comprehension must descend to the same psychic level upon which the conflict originally developed. Otherwise the comprehension does not meet the phenomenon, because different psychic levels are involved. There are two kinds of *knowing*, one of which—*theoretical knowing*—cannot influence the unconscious process. Only *emotional knowing* can effect real changes.

Our psychoanalytic aim must be to raise deeper and deeper levels to the consciousness of the patient. This is possible only by degrees, by disclosing one psychic stratum after the other. There are conflicts

of which the patient is fully aware, as for instance when a real danger opposes the satisfaction of one of his wishes. The dangers which threaten from the outer world produce the child's first conflicts. The inhibition of many impulses by dangers threatening from the outer world which in the child come mostly from the parents is very important to adults, too. Freud in his book *Civilization and Its Discontents* referred to this fact as follows: "In a little child it can never be anything else, but in many adults too it has changed only insofar as the larger human community takes the place of the father or both parents. Consequently such people habitually permit themselves to do any bad deed that procures them something they want, if only they are sure that no authority will discover it or make them suffer for it; their anxiety relates only to the possibility of detection. Present-day society has to take into account the prevalence of this state of mind."

The conscious psychic conflicts between strong desires and the fear of real dangers from the outer world, the conflicts which the individual himself describes, were known long before psychoanalysis. In these cases the ego knows both of the psychic factors of the conflict—the desire on the one hand, the fear of dangerous consequences, on the other. It is also well known that there are psychic conflicts which are conscious to the individual, but in which the inhibitory factor does not depend on a danger from the outer world. Conscious conscience-conflicts are of this type. These are the conflicts between temptation and conscience which so many novelists and dramatists have described. Many opponents of psychoanalysis refer to this kind of conflict in criticizing Freud. They would demonstrate that conscience-conflicts do not provoke neuroses and that in many neuroses conscience-conflicts are not to be found. They do not grasp Freud's conception of the conflict between a conscious and an unconscious force, or between two unconscious forces.

Passing over this great misunderstanding, however, we know that psychoanalysis can penetrate to the deeper origin of the conscience, as it appears to the ego. In many cases a conscious internal conflict depends on erroneous prohibitions of the conscience which strangle the instinctual life without any reasonable justification. Sometimes the individual feels guilty because of deeds which are in no way socially objectionable. In these cases the psychoanalyst has to break down the erroneous patterns, which are the precipitates of old bonds of affection

to the guides of childhood. But the adult does not know any more where he has received these moral conceptions which have become his own and which he now defends by rationalizations.

Let us now consider in what way these acquired opinions may still reveal themselves even though the ego not only supports them no longer with reasoning but even consciously repudiates them. We shall see that in all these cases there appears a phenomenon which also occurs where one yields to a temptation by transgressing the exigencies of the conscience. The adopted opinion takes the shape of a prohibiting figure whose image besets or haunts the "guilty" person. This imagined or even hallucinated person may be actually confused by the guilty ego with the real person, with the belief that this imaginary person persecutes him. An example will explain my point.

A young man succeeded in convincing himself that under certain circumstances it would not be reprehensible to defraud the public treasury of some money. I will not dwell on his reasoning, permeated by such rationalizations as that he did not damage anyone's interest by his action. We know how an individual tries to get rid of the inhibition of his own conscience in order to be able to commit a forbidden deed, by explaining it away, and we know that the psychoanalyst has to analyze the *hidden* meaning of the committed deed because it does not always represent the original unconscious motives. Here we shall consider only the inhibitory factor. The young man thought he would be able to commit the crime without a sense of guilt—that is, without a bad conscience. While he was arranging the details of the theft, the reproachful image of his father appeared in his mind with almost hallucinatory vividness. He thus became aware of his own feeling of guilt which he had wanted to ignore. He then became very confused in his relationship with his actual father, as if the earlier image of his father watching him had merged with the real person of his father, although the latter knew nothing of the theft.

I have called such images which pursue the guilty person "psychic presences."^{*} The clinical analysis of such instances and the corresponding metapsychological inquiry lead to the most interesting con-

^{*} I am aware that pleasurable images or "psychic presences" also are common. But these are acceptable to the ego and are a part of ordinary thinking. They do not appear unwanted, in spite of the ego, as does the kind of psychic presence with which this paper is concerned.

siderations, permit us to understand the meaning of many dream-images, and, finally, provide us with valuable instruments for analytic intervention. I shall restrict myself in this paper to some types of their appearance.

Artists have frequently exploited the phenomenon of the psychic presence. In pictures, dramas and novels the guilty person is represented as being tortured by the vivid image of the injured person. In motion pictures this phenomenon is sometimes represented by a kaleidoscopic succession of reproachful faces of the persons whose esteem and love the guilty person cannot dispense with. Very often in actual life the psychic presence is intensified when the guilty person looks at a photograph or picture of the offended or murdered person. Many times we can see that a person who feels guilty behaves toward a picture of a loved person in the same way as he would behave toward the real person. In the compulsion neuroses this appears very clearly. Often the aggressive impulses of one person toward another are vented upon the picture of the latter. On the other hand, it sometimes happens that a husband or a wife cannot "betray" the partner in the presence of his or her picture. I remember a picture in a humorous magazine in which a woman allowed a man to kiss her, after covering the eyes of her husband's picture on a nearby table.

Murderers often feel haunted when awake as well as in dreams, by the image or even by the hallucination of the murdered person. Such visions or apparitions are terrifying to a high degree. We think for instance of Macbeth's vision of Banquo whom he had ordered to be killed. A more interesting case of this kind is beautifully described by Emile Zola in his novel *Thérèse Raquin*. Laurent and Thérèse kill Camille, the husband of Thérèse, and are married. But the image of the victim forces itself upon their minds in such a horrifying way that the love is completely extinguished. They cannot live together any more. Whenever Laurent, who is an artist, returns to his painting, all the faces in his pictures, even those of Roman warriors, those of virgins with halos, even animals, take on the features of Camille. The guilty painter cannot master his hand any more; it is compelled to paint only the victim. This ineluctable image becomes almost an hallucination and the terror caused by it becomes so unbearable that both Thérèse and Laurent end their lives by suicide.

We have mentioned as examples so far only the intuitive creations of

artists. But sometimes it happens in reality that a murderer surrenders to the authorities, even after a lapse of many years, because he is driven to do so by the "ghost" of his victim.

Let me now cite some examples of "psychic presences" in the waking state and in dreams. I shall then allude to some derivatives or intellectual elaborations of these presences.

A boy of twelve when dreaming was sometimes aware of the fact that he was dreaming. Once he thought he could satisfy his strong and unbearable sexual longings in these dreams. He could assault sexually the women he met in the dream without any danger, if only he were aware that he was in a dream world. And, indeed, he sometimes found himself dreaming and not only knowing that he was dreaming, but also remembering his purpose of utilizing the situation to satisfy his sexual desires. Once a woman appeared to him in the dream, but as he set about to approach her with aggressive sexual aims, his mother appeared to him at the same time, staring at him in a reproachful manner, exactly as she used to stare at him in his infancy when she discovered in the morning that he had wet the bed. The appearance of his mother in the dream inhibited him in his sexual intentions as if she had been real, and not a part of his dream. But when he awakened he became angry with himself for having ignored, in the dream, the fact that the mother was as unreal as everything else. The mother-image with the super-ego function was a reality to him. The patient's feeling, in the dream, that the mother was real and that she represented a real danger, was valid insofar as the internal factor represented by the dream-mother was a real factor. And this real (psychic) factor existed also in the waking state and had an inhibiting and punishing function just as did the dream-mother.

There are many forms of psychic presences and of secondary elaborations of them. To illustrate: a girl who was persuaded by friends to go into a place of low repute thought, while going there, that she heard the voice of her crying mother. The psychic presence revealed itself, in this case, in an acoustical way. Sometimes the psychic presence reveals itself only in a succeeding dream which refers clearly to the respective situation of the day before.

In the waking state (never in the dream) the psychic presence can be replaced by an intellectual elaboration of it. The most important elaboration is the disguise of the "psychic presence" in a conditional

thought. The guilty person says for instance, "I am worried about having done that, because my father or somebody else might be grieved by it, or become angry at me or even cease to love or esteem me, if he knew of it." The conditionality of this sentence is purely formal, because the guilty person expresses himself like that, even if the father or the other person is dead. It is only a compromise between the psychic presence and the reality which denies the material presence of the grieved person. But we see in this phenomenon how right Freud is in emphasizing psychic reality.

This phenomenon is of great practical importance in psychoanalytic treatment. How can we explain it? In studying the formation of the super-ego in the child, we can distinguish roughly three states of its development: (1) the first conflict of the little child comes from danger, caused by real objects; (2) in the second phase the child feels inhibited in the expression of the disapproved impulses by his recollection of his parents; and (3) later, little by little, the object-image is introjected and thereby shapes the super-ego. We see now, that in the phenomenon of the psychic presence the super-ego formation regresses to the second phase of development in which the guilty child is worried by his image of the prohibiting authority. But I know very well that this phenomenon is not completely explained by the regression to a former phase. The victim does not always represent the super-ego.

As to the practical value of the phenomenon in psychoanalytic treatment, we find that a guilt-feeling reduced to the form of a "psychic presence" is promptly acknowledged by the patient as such, and he thus has a definite impression of the disturbing factor. We know also that the described regression of the super-ego indicates a tension in the relation between the ego and super-ego. Such tension can be created by different circumstances, one of which is a violation of the rules prescribed by the super-ego, or by the conscience. These acts of violation can become dangerous to the patient's equilibrium. Sometimes such an outrage to the super-ego may be produced by the psychoanalytic intervention itself and the psychoanalyst must then proceed more carefully and at the same time know how to utilize the incident so that the patient may realize the factors in his conflict.

An example of this occurred in a young woman patient who dreamed that she met two nuns. One of them pointed to her breast on which there was a very ugly beast. All associations led to the sexuality of the

patient who had been educated in a very strict religious manner. The beast symbolized the nun's conception of sexuality, which the patient had adopted as a part of the pattern of her own super-ego. I tried, carefully, to convince this patient that her derogatory opinion of sexuality was not in accordance with its real nature. She began to accept sexuality, but then dreamed that she was in her parents' room with them. Suddenly the door opened and I entered without knocking. I had a horrible expression on my face; I looked like a monster; everybody was frightened. This dream showed clearly that I had caused in the patient too high a tension. I became still more cautious in my efforts to correct the patient's prejudices against sexuality. Gradually she understood more and more the origin of her misconceptions. A month later she dreamed that she was in my office and that her father entered. He was dressed like a jailer of the middle ages. We see that she already accepted the analytic conception and from this new point of view the father now appeared to her as a person from whom she wanted to detach herself.

Our studies also lead us to consider dreams of the death of parents or other near relatives from another point of view than the usual one. It is true that such dreams contain the wish to eliminate these persons. But if we recognize that these persons correspond to certain dangerous conceptions of the dreamer we can recognize at the same time that the elimination of these unfavorable opinions and conceptions is an advantage for him. When a patient dreams of the death of his father or mother from whom he must detach himself in order to acquire his psychic independence, it is a favorable sign. We must add that the advantage can be achieved only when he does not suffer in these dreams. If he were desperate it would mean that he was still unable to rid himself of this bond.

Thus we see that the intrapsychic conflict between the ego with its instinctual strivings (id) and the super-ego may be dramatized in dreams and in waking life through the appearance of the "psychic presence". I have tried to show, by drawing instances from clinical material, from literature, and from human experience, in what different ways this psychological phenomenon manifests itself. By utilizing this concept of the psychic presence, many otherwise puzzling dreams and reactions of patients become illuminated with understanding.

OUTPATIENT TREATMENT OF SUB-ACUTE SCHIZOPHRENIA

BY HANFORD L. AUTEN, M.D.

Few questions in psychiatry are more difficult to answer definitively than that of the prognosis in schizophrenia. It is well known that some cases recover without treatment and that others fail to recover in spite of the most intensive and varied treatment. To ascribe the recovery of any particular case to the specific treatment administered involves a vast number of fallacies. It is this that makes the evaluation of various treatment methods for this condition so difficult. Statistics concerning such improvements are therefore extremely unreliable, and it would seem to be scientifically more sound to rely upon impressions and the analyses of individual cases than to draw conclusions from statistics.

For this reason the author states only as his impression and that of his colleagues that psychotherapeutic methods, combined with an environmental readjustment, are frequently responsible for the amelioration of incipient or even well developed schizophrenic psychoses, and this is our method of choice. How much credit to give the environmental modifications (the milieu treatment) and how much the psychotherapy is very difficult to decide. Light would seem to be thrown on this problem by those cases in which, for external reasons, it is impossible to provide the ideal milieu treatment, and total reliance has to be placed upon psychotherapy. When in such a case definite improvement follows, one is justified in the assumption that the potency of the unaided psychotherapy is to some extent demonstrated, and an examination of the probable dynamics of the psychotherapeutic process would seem to be justified from the point of view of improving our technique of dealing with schizophrenia.

The subject of this case report is a 16-year-old girl. Her mother had been the indulged, self-willed baby of a large family and had nagged her peace-loving husband, the patient's father, throughout their married life. The patient's two older sisters were 11 and 13 when the patient's mother discovered her third pregnancy. She was greatly annoyed at the prospect of another child, and reacted by violent outbursts of temper, threats of suicide and unsuccessful attempts to

produce an abortion. After the patient was born her mother insisted that she would never wean her and continued to nurse her until the patient refused the breast at the age of 16 months. Speech, walking, and sphincter training were but slightly delayed and, except for the temper-tantrums with which she secured indulgence of all her wishes, the patient seemed normal until, at the age of 4, she seemed to suffer excessively severe, prolonged pain while recovering from a fractured clavicle.

During the patient's school years, her mother visited the school several times each week in order to demand special privileges, attention and concessions for the child. At home, however, the mother proved to be a martinet, spending hours each afternoon and evening drilling the assignments into the patient's memory, or telling her if she did not do well in school no one would like her. While her grades were never high, they were always passing and she progressed at a normal rate until she reached the 8th grade, where her teacher felt there was no use spending time on her, and refused to sign the diploma which would have permitted her to enter high school.

She had had only one friend during her childhood, a girl of her own age who had died of scarlet-fever when they were both about 10 years old. The patient has never been known to mention her friend's name or to speak of her since that time. The only other contact she had with persons outside of her home was with the members of the club of church women to which her mother belonged.

During her last two years in school as well as during the two years she was at home after leaving the eighth grade, it became increasingly apparent to the patient's sisters that there was something radically wrong in her behavior. She had never had a wide sphere of interests, but that which she did have seemed to be constricting rapidly, until by her fifteenth summer she would do nothing without pressure except lie on her bed and look at pictures of two movie actors by the hour. After her mother began to overhear the patient "talking" to them, she agreed with the sisters that the symptoms warranted a diagnostic study. Up until this time she had insisted that nothing was wrong with the patient, in the face of a growing feeling in the community in which they lived that the girl was very "queer," and had rejected all suggestions that her condition warranted an investigation, declaring that nobody was going to take her baby away from home.

The patient was examined at the Mayo Clinic, where it was recommended that she be brought to the Menninger Clinic for further study and treatment. Examination here confirmed previous reports that there was nothing noteworthy in her physical condition other than a myopia and a chronic tonsillitis, and established a diagnosis of schizophrenia.

It was possible to establish good rapport with the patient during the psychiatric physical examination, and as a result of this the patient told the examiner that ever since she had been six years old her mother had told her if she masturbated she would "go crazy" and the Devil would come and take her to Hell. She had been well informed as to what Hell was supposed to be like, and was considerably worried about the predictions. As she told of this, she pulled at her hair until the examiner asked her why she was doing so, whereupon she began to masturbate openly, with furtive glances at him. After she had observed that he made no comment, she said that since she had started to school the little boys of the neighborhood had been putting their penises into her and that she liked this because it showed that she was loved. She said that best of all was when the two movie actors put their penises into her, and that she wanted to go to Hollywood so they could do so oftener. She spoke in a thin, whining whisper, with little spontaneity, but without hesitation when questioned.*

Her illness was diagnosed as sub-acute hebephrenic schizophrenia, and it was recommended that she enter the Southard School for the complete readjustment in environment which could be effected there. Since her mother peremptorily refused to hear of any separation, they were permitted to return home with instructions that the sister accompany the patient on future visits.

The patient returned with her sister in about four weeks for another interview. The diagnostic interviews appeared to have had some therapeutic effect, for she had begun to show increased interest in things and more pride in her personal appearance, and had been receiving less attention from her mother. Her appearance at that time was definitely improved, but she asked the same questions as before and

*At this time the examiner was of the opinion that her story of intercourse with little boys might not be fantasy. Subsequent interviews have made him inclined to believe that the whole thing was a fabrication, but he still does not feel sure.

again masturbated, exhibiting herself to the examiner. She also drew some simple sketches representing male and female figures having intercourse. When she was asked when she would like to return, she set a date five weeks in advance.

Since the initial examination she has been seen nine times altogether at intervals of three to four weeks, and has made definite, steady progress after each of the visits. At each visit the examiner interviewed the sister also, obtaining a report on the patient's behavior and giving her specific instructions for managing the patient. The sister carried these out faithfully, in spite of the mother's interference. The patient has not had a temper-tantrum for many weeks; she now calls on other children, usually girls 3-4 years younger than herself, does the family marketing, reads the newspapers and is generally regarded by her fellow townspeople as having improved to a remarkable extent.

Her preoccupation with Hell and with a certain movie actor continues, and she has volunteered the information on several occasions that her mother has cautioned her against telling anything to the physician. She says, however, that she thinks her sister knows more than her mother and that she does what her sister tells her to. Hence she can talk without restraint.

In this statement the patient gives us the clue as to the probable explanation for her improvement. Her sister, an unusually intelligent, intuitive young woman, has been encouraged in her feeling that the patient must be weaned from her mother's over-protective and ambivalent attitude by our support, and has taken every opportunity to strengthen the patient's feeble self-reliance and to weaken her dependence upon her mother. The patient has been developing a stronger identification with her sister, which seems to be making it possible for her to break the old dependence upon her mother, and she has formed a transference toward her physician, apparently because he represents an authoritative, yet uncritical figure who has been able to help her verbalize many of her anxieties. By working out solutions of these problems she has been finding even more gratification than she had derived from her former preoccupation with various phantasied love affairs.

There are many emotional conflicts still to be worked out in this girl's illness, and with all that can be done in such psychotherapy, her

chances of achieving a normal adult adaptation to life appear to be very remote. However, it is of great significance to note that, despite the continued efforts of her mother to sabotage the therapeutic plan, a definite program of presentation of more satisfactory forms of emotional gratification, without criticism of the primitive and phantasied gratifications through which this patient had managed to make life tolerable for herself, is bearing fruit. This improvement offers some encouragement for other similar cases in which it is not possible to combine institutional care with the psychotherapeutic interviews.

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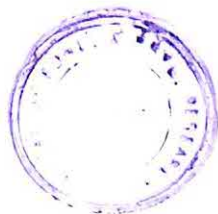
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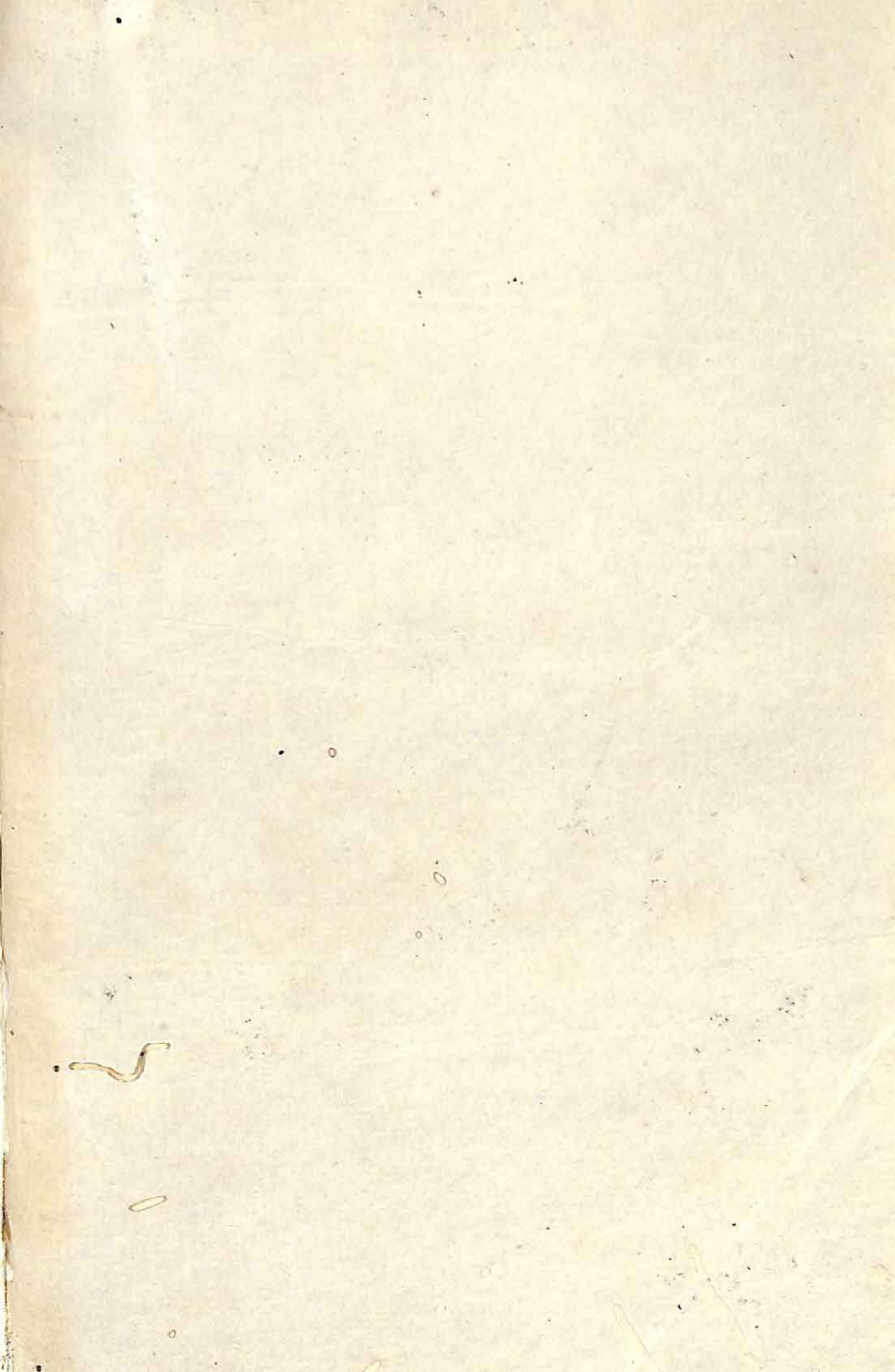
RESIDENCIES IN NEUROPSYCHIATRY

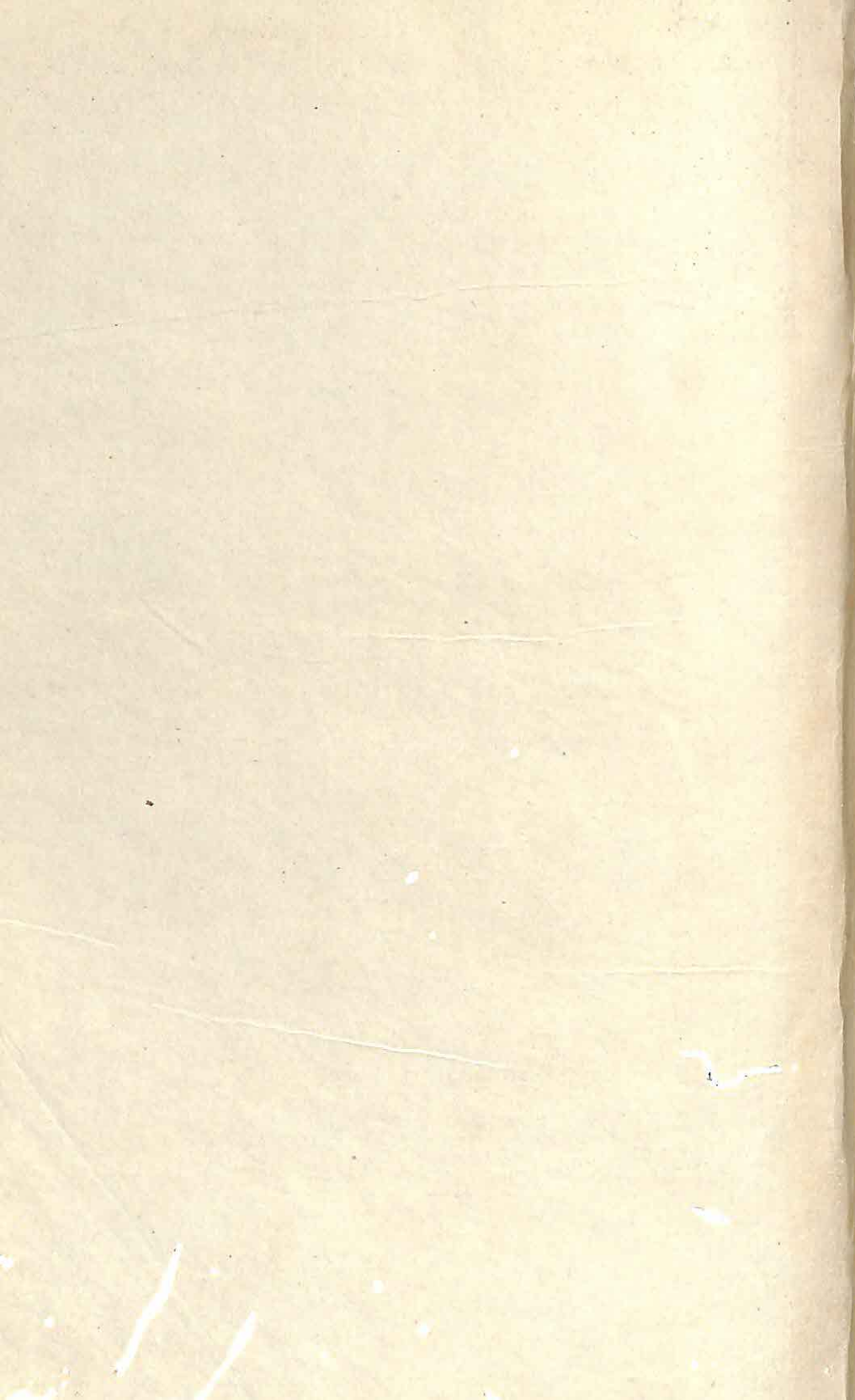
The Menninger Sanitarium is receiving applications for residency appointments beginning January 1941. Minimum requirements for candidacy are graduation from an approved medical school and completion of an internship in an approved hospital. Candidates with psychoanalytic training are given preference, but this is not a requirement.

Residency training includes personal and group instruction by the senior staff members, and the residents are eligible to attend seminar discussion groups, staff conferences, the sessions of the postgraduate courses for nurses and for physicians, and class work in psychology, neurology, neuropathology, psychiatry, child psychiatry, and psychoanalysis.









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